=> FILE REG
FILE 'REGISTRY' ENTERED AT 16:56:53 ON 06 MAY 2003

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 5 MAY 2003 HIGHEST RN 510776-00-8
DICTIONARY FILE UPDATES: 5 MAY 2003 HIGHEST RN 510776-00-8

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2003

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=> FILE HCAPLUS
FILE 'HCAPLUS' ENTERED AT 16:56:58 ON 06 MAY 2003

FILE COVERS 1907 - 6 May 2003 VOL 138 ISS 19
FILE LAST UPDATED: 5 May 2003 (20030505/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> D QUE
L21 4 SEA FILE=REGISTRY ABB=ON (204995-91-5/BI OR 246220-97-3/BI OR 2809-21-4/BI OR 83929-91-3/BI)
L25 275802 SEA FILE=REGISTRY ABB=ON 46.195.39/RID
L27 32293 SEA FILE=REGISTRY ABB=ON 591.359.15/RID
L29 12344 SEA FILE=REGISTRY ABB=ON 591.62.22/RID
L33 1871 SEA FILE=REGISTRY ABB=ON 46.169.1/RID
L35 38023 SEA FILE=REGISTRY ABB=ON 46.383.21/RID
L36 125450 SEA FILE=REGISTRY ABB=ON 46.492.16/RID
L37 1 SEA FILE=REGISTRY ABB=ON L21 AND 1-2/P

ring identifiers for the nitrogen heterocycles

acetodiphosphonic acid

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

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L38           1 SEA FILE=REGISTRY ABB=ON  L21 AND 1-20/NR
L39           2 SEA FILE=REGISTRY ABB=ON  L21 NOT (L37 OR L38)
L40      128901 SEA FILE=HCAPLUS ABB=ON  L25
L41       13091 SEA FILE=HCAPLUS ABB=ON  L27
L42        8348 SEA FILE=HCAPLUS ABB=ON  L29
L43         663 SEA FILE=HCAPLUS ABB=ON  L33
L44       20462 SEA FILE=HCAPLUS ABB=ON  L35
L45       88888 SEA FILE=HCAPLUS ABB=ON  L36
L46        3823 SEA FILE=HCAPLUS ABB=ON  L37
L47          96 SEA FILE=HCAPLUS ABB=ON  L46 AND ((L40 OR L41 OR L42 OR L43 OR
                  L44 OR L45))
L48           2 SEA FILE=HCAPLUS ABB=ON  L47 AND DYES/SC,SX
L49        4270 SEA FILE=HCAPLUS ABB=ON  (?PHOSPHONAT? OR ?BORAT?) AND ((L40
                  OR L41 OR L42 OR L43 OR L44 OR L45))
L50          70 SEA FILE=HCAPLUS ABB=ON  L49 AND DYES/SC,SX
L51           8 SEA FILE=HCAPLUS ABB=ON  L50 AND ?CHROMOPHOR?
L53          36 SEA FILE=HCAPLUS ABB=ON  L50 AND (PREP OR IMF OR SPN)/RL
L59           7 SEA FILE=HCAPLUS ABB=ON  L47 AND COSMETIC?/SC,SX
L60          49 SEA FILE=HCAPLUS ABB=ON  L49 AND COSMETIC?/SC,SX
L61          16 SEA FILE=HCAPLUS ABB=ON  L60 AND (PREP OR IMF OR SPN)/RL
L62          30 SEA FILE=HCAPLUS ABB=ON  L48 OR L59 OR L51 OR L61
L63           2 SEA FILE=HCAPLUS ABB=ON  L53 AND LINK?
L64          31 SEA FILE=HCAPLUS ABB=ON  L62 OR L63
L66          16 SEA FILE=HCAPLUS ABB=ON  L39
L67           1 SEA FILE=HCAPLUS ABB=ON  L49 AND L66
L69          28 SEA FILE=HCAPLUS ABB=ON  L50 AND (TEXTILE# OR WOOL# OR COTTON
                  OR SILK# KERAT? OR POLYAMIDE? OR NYLON OR HAIR OR LEATHER)
L70          53 SEA FILE=HCAPLUS ABB=ON  L64 OR L67 OR L69
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=> SEL HIT RN L70 1-53
E1 THROUGH E316 ASSIGNED

316 hit RN's in the 53 references so printed one structure per reference

=> D L70 1-53 ALL FHITSTR

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L70  ANSWER 1 OF 53  HCAPLUS  COPYRIGHT 2003 ACS
AN   2003:114216  HCAPLUS
DN   138:142182
TI   Two component oxidative hair dyes with viscosity-related selective
     coloring
IN   Hoeffkes, Horst; Horstmann, Barbara; Bernecker, Ullrich
PA   Henkel Kgaa, Germany
SO   Ger. Offen., 18 pp.
     CODEN: GWXXBX
DT   Patent
LA   German
IC   ICM  A61K007-135
     ICS  A61K007-13
CC   62-3 (Essential Oils and Cosmetics)
FAN.CNT 1
     PATENT NO.        KIND  DATE          APPLICATION NO.  DATE
     ---------------   ----  --------      ---------------  --------
PI   DE 10138094        A1   20030213      DE 2001-10138094 20010803
     WO 2003013450      A2   20030220      WO 2002-EP8388   20020727
         W:  AU, JP, US
         RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT,
             LU, MC, NL, PT, SE, SK, TR
PRAI DE 2001-10138094  A    20010803
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OS MARPAT 138:142182

AB The invention concerns oxidative hair dyes that are composed of an alk. component and an acidic component; the acidic component contains the oxidn. agent and at least one branched C6-C30 carboxylic acid and/or C8-C30 branched or linear dicarboxylic acid or their derivs.; after mixing the two component the viscosity gradually increases, thus permitting easy application and no spreading of the dye with time. New-grown gray hair and hair stripes can be dyed selectively. The C8-C30 dicarboxylic acids are preferably cyclohexene derivs. The compns. further contain nonionic surfactants, dye precursors, and thickening agents. Thus an acidic oxydative component contained (wt./wt.): Texapon N28 2.0; dipicolinic acid 0.1; sodiumpyrophosphate 0.03; Turpinal SL 1.5; Dow Corning DB 110 A 0.07; Aculyn 33 12.0; Eumulgin B1 0.5; isostearic acid 1.5; hydrogen peroxide 12.0; ammonia to pH 4; water to 100. The alk. component included (wt./wt.): Hydrenol D 5.5; Kokoslorol 2.0; 1.0; Eutanol G 1.0; Eumulgin B1 0.5; Eumulgin B2 0.5; Lamesoft PO65 2.0; Texapon K14 S70C 2.8; Akypo Soft 45NV 10.0; Polymer W37194 3.8; sodium sulfite 0.5; L-ascorbic acid 0.4; p-tolylene-diamine sulfate 1.5; 2-methylresorcin 1.1; resorcin 0.3; methyl yellow 0.05; 2,4,5,6-tetraamino pyrimidine sulfate 1.7; m-aminophenol 0.07; 4-amino-3-methylphenol 0.2; 2,7-dihydroxynaphthalene 0.5; perfume 0.3; Turpinal SL 0.2; ammonia (25%) 8.0; water to 100.

ST oxydative hair dye viscosity selective coloring cyclohexene octanoate dicarboxylate

IT Carboxylic acids, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(C6-C30; two component oxidative hair dyes with viscosity-related selective coloring)

IT Alcohols, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(C16-18, ethoxylated; two component oxidative hair dyes with viscosity-related selective coloring)

IT Alcohols, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(C16-18; two component oxidative hair dyes with viscosity-related selective coloring)

IT Carboxylic acids, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(dicarboxylic, C8-C30 branched or linear; two component oxidative hair dyes with viscosity-related selective coloring)

IT Hair preparations
(dyes, oxidative; two component oxidative hair dyes with viscosity-related selective coloring)

IT Castor oil
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(ethoxylated; two component oxidative hair dyes with viscosity-related selective coloring)

IT Hair preparations
(gels, dyes; two component oxidative hair dyes with viscosity-related selective coloring)

IT Surfactants
(nonionic; two component oxidative hair dyes with viscosity-related selective coloring)

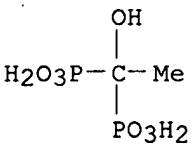
IT Oxidizing agents
Thickening agents
Viscosity
(two component oxidative hair dyes with viscosity-related selective coloring)

IT 60-11-7, Methyl yellow 108-46-3, Resorcin, biological studies

110-83-8D, Cyclohexene, dicarboxylic acid derivs. 149-57-5, 2-Ethylhexanoic acid 582-17-2, 2,7-Naphthalenediol 591-27-5, m-Aminophenol 608-25-3, 2-Methylresorcin **2809-21-4**, Turpinal SL 2835-99-6, Phenol, 4-amino-3-methyl- 5333-42-6, Eutanol G 6369-59-1, p-Toluenediamine sulfate 7722-84-1, Hydrogen peroxide, biological studies 25354-97-6, 2-Hexyldecanoic acid 25448-24-2, Isotridecanoic acid 30399-84-9, Isostearic acid 31694-55-0, Ethoxylated glycerin 32844-67-0, Isopalmitic acid 40596-46-1, 2-Octyldodecanoic acid 42763-46-2, 2-Cyclohexene-1-octanoic acid, 6-carboxy-4-hexyl- 42763-47-3, 2-Cyclohexene-1-octanoic acid, 5-carboxy-4-hexyl- **49647-58-7**, Pyrimidinetetramine, sulfate 202833-50-9, Lamesoft PO65
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(two component oxidative hair dyes with viscosity-related selective coloring)

IT **2809-21-4**, Turpinal SL
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(two component oxidative hair dyes with viscosity-related selective coloring)

RN 2809-21-4 HCAPLUS
CN Phosphonic acid, (1-hydroxyethylidene)bis- (9CI) (CA INDEX NAME)



L70 ANSWER 2 OF 53 HCAPLUS COPYRIGHT 2003 ACS
AN 2002:902214 HCAPLUS
DN 138:1668
TI Purification and characterization of an autoclavable superoxide dismutase (SOD) isozyme from Potentilla atrosanguinea, and use of the SOD in cosmetic, food and pharmaceutical compositions
IN Kumar, Sanjay; Sahoo, Rashmita; Ahuja, Paramvir Singh
PA Council of Scientific & Industrial Research(CSIR), India
SO U.S., 30 pp.
CODEN: USXXAM
DT Patent
LA English
IC ICM C12N009-02
ICS C12N009-00; A61K038-44
NCL 435189000; 435183000; 424094400
CC 7-2 (Enzymes)
Section cross-reference(s): 17, **62**, 63
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6485950	B1	20021126	US 2000-617118	20000714
	US 2003064494	A1	20030403	US 2002-274053	20021021
PRAI	US 2000-617118	A3	20000714		

AB The invention relates to a novel purified isoenzyme of an autoclavable superoxide dismutase extd. from the plant Potentilla atrosanguinea Lodd. variety argyrophylla. The superoxide dismutase has the following characteristics: O2-scavenging activity remains same before and after

autoclaving; scavenges O2- from sub-zero temp. of -20.degree. C. to high temp. of +80.degree..; O2- scavenging activity at 25.degree. for 30 days without adding any stabilizing agent such as polyols or sugars; O2- scavenging activity in the presence of saline (0.9% sodium chloride) to 61.8% of the control (without 0.9% sodium chloride), stable at 4.degree. for at least 8 mo; contamination free and infection free from any living micro- and/or macro-organism after autoclaving. The enzyme possesses temp. optima at 0.degree.; possesses a mol. wt. of 33 kD under non-denaturating conditions; possesses a mol. wt. of 36 kD under denaturating conditions; has clear peaks in UV range at 268 and 275 nm; has an enzyme turnover no. of 19.53.times.104% per nmol per min at 0.degree.; and requires Cu/Zn as a co-factor. The invention also relates to a process for the extn. of the superoxide dismutase and its use in prepg. cosmetic, pharmaceutical and food compns. The method for the prepn. of the purified isoenzyme of autoclavable superoxide dismutase and formulations contg. the said autoclavable superoxide dismutase are disclosed.

ST Potentilla superoxide dismutase autoclavable isoenzyme cosmetics food pharmaceutical

IT Alcohols, biological studies
RL: COS (Cosmetic use); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(C16-18, compns. contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT Fats and Glyceridic oils, biological studies
RL: COS (Cosmetic use); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(Japan wax, compns. contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT Gel electrophoresis
(PAGE, SOD detection using; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT Caseins, biological studies
RL: COS (Cosmetic use); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(SOD coimmobilized with; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT Avens (Geum elatum)
(SOD from; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT Polysaccharides, uses
RL: NUU (Other use, unclassified); USES (Uses)
(SOD immobilization; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT Monoglycerides
RL: COS (Cosmetic use); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(acetates, gums contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT Drug delivery systems
(aerosols; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)
IT Fats and Glyceridic oils, biological studies
RL: COS (Cosmetic use); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(almond, compns. contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)
IT Antibodies
RL: BPN (Biosynthetic preparation); BUU (Biological use, unclassified); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(anti-SOD; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)
IT Dentifrices
(antiplaque; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)
IT Heating
(autoclaving; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)
IT Fats and Glyceridic oils, biological studies
RL: COS (Cosmetic use); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(avocado, compns. contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)
IT Radish (Raphanus sativus)
(black, peroxidase; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)
IT Fats and Glyceridic oils, biological studies
RL: COS (Cosmetic use); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(borage seed, compns. contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)
IT Cosmetics
(cleansing; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)
IT Immobilization, molecular
(coimmobilization; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)
IT Metabolic pathways
(compn. contg. pentose monophosphate shunt enzymes; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)
IT Enzymes, biological studies
RL: COS (Cosmetic use); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(compn. contg. pentose monophosphate shunt enzymes; purifn. and

characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT Amphiphiles
Analgesics
Anti-inflammatory agents
Antibacterial agents
Antibiotics
Antimicrobial agents
Antioxidants
Beeswax
Carriers
Coloring materials
Emulsifying agents
Feed additives
Flavoring materials
Hemostatics
Perfumes
Preservatives
Radical scavengers
Surfactants
Vaccines
(compns. contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT Castor oil
Coconut oil
Corn oil
Essential oils
Fats and Glyceridic oils, biological studies
Fatty acids, biological studies
Glycerides, biological studies
Hormones, animal, biological studies
Hydrocarbon oils
Melanins
Olive oil
Palm oil
Paraffin oils
Phosphatidylcholines, biological studies
Phosphatidylethanolamines, biological studies
Polyoxyalkylenes, biological studies
Soybean oil
Steroids, biological studies
Sulfites
Thiols (organic), biological studies
Tocopherols
Vitamins
RL: COS (Cosmetic use); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(compns. contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT Polyamides, biological studies
Polyurethanes, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(compns. contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT Drug delivery systems
(controlled-release; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)
IT Cosmetics
(cosmetic dyes; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)
IT Dyes
(cosmetic; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)
IT Cosmetics
(creams; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)
IT Scalp
(disease, treatment of; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)
IT Gelatins, biological studies
Ovalbumin
Polymers, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(drug delivery system contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)
IT Lecithins
RL: COS (Cosmetic use); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(egg yolk, compns. contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)
IT Cosmetics
Drug delivery systems
(emollients; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)
IT Drug delivery systems
(emulsions; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)
IT Immobilization, molecular
(enzyme; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)
IT Fats and Glyceridic oils, biological studies
RL: COS (Cosmetic use); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(evening primrose, compns. contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)
IT Alcohols, biological studies
RL: COS (Cosmetic use); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(fatty, compns. contg.; purifn. and characterization of autoclavable

superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT Drug delivery systems
(film; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT Cosmetics
Drug delivery systems
(gels; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT Drug delivery systems
(glycospheres; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT Fillers
Plasticizers
(gums contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT Rubber, biological studies
Waxes
RL: COS (Cosmetic use); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(gums contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT Enzymes, biological studies
RL: COS (Cosmetic use); FFD (Food or feed use); PNU (Preparation, unclassified); THU (Therapeutic use); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(immobilized; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT Fatty acids, biological studies
RL: COS (Cosmetic use); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(lanolin, compns. contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT Drug delivery systems
(liposomes; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT Anesthetics
(local, compns. contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT Glycerides, biological studies
RL: COS (Cosmetic use); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(long-chain, compns. contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT Cosmetics
Drug delivery systems
(lotions; purifn. and characterization of autoclavable superoxide

dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT Drug delivery systems
(lozenges; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT Cosmetics
(makeup removers; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT Glycerides, biological studies
RL: COS (Cosmetic use); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(medium-chain, compns. contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT Drug delivery systems
(microgranules; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT Cosmetics
(moisturizers; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT Antibodies
RL: COS (Cosmetic use); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(monoclonal, compns. contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT Cosmetics
(mousses; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT Cosmetics
(nail lacquers; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT Drug delivery systems
(nanospheres; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT Liquids
(oils; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT Drug delivery systems
(ointments, creams; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT Drug delivery systems
(ointments; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT Drug delivery systems
(ophthalmic; purifn. and characterization of autoclavable superoxide

dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT Drug delivery systems
(oral; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT Drug delivery systems
(parenterals; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT Drug delivery systems
(pastes; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT Spinal cord
(peroxidase; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT Immobilization, molecular
(protein; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT Aerosols
Buffers
Cosmetics
Dental materials and appliances
Dentifrices
Deodorants
Dialysis
Drug delivery systems
Drugs
Food additives
Gums and Mucilages
HPLC
Hair preparations
Homogenization
Ion exchange chromatography
Leaf
Potentilla
Potentilla argyrophylla atrosanguinea
Precipitation (chemical)
Shampoos
Solutions
Sprays
Stability
Sunscreens
Tablets
Thermal stability
(purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT Antiperspirants
(roll-on; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT Albumins, biological studies
RL: COS (Cosmetic use); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(serum, SOD coimmobilized with; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT Fats and Glyceridic oils, biological studies
RL: COS (Cosmetic use); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(sesame, compns. contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT Cosmetics
(skin-lightening, compns. contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT Drug delivery systems
(solns.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT Lecithins
Phospholipids, biological studies
RL: COS (Cosmetic use); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(soya, compns. contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT Proteins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(soybean, drug delivery system contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT Drug delivery systems
(sprays; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT Cosmetics
(sticks; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT Drug delivery systems
(suspensions; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT Drug delivery systems
(tablets; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT Drug delivery systems
(topical; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT Drug delivery systems
(transdermal; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT Psoriasis
Seborrhea

Skin, disease
(treatment of; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT Fats and Glyceridic oils, biological studies
RL: COS (Cosmetic use); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(vegetable, compns. contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT Drug delivery systems
(vesicular dispersions; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT Fats and Glyceridic oils, biological studies
RL: COS (Cosmetic use); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(wheat germ, compns. contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT Tannins
RL: COS (Cosmetic use); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(zinc salts, compns. contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT 99-96-7D, alkyl esters
RL: COS (Cosmetic use); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(Parabens, compns. contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT 9002-07-7, Trypsin
RL: COS (Cosmetic use); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(SOD coimmobilized with; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT 9002-89-5, Polyvinyl alcohol 9004-53-9, Dextrin 9004-54-0, Dextran, uses
RL: NUU (Other use, unclassified); USES (Uses)
(SOD immobilization; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT 56-81-5, Glycerol, biological studies
RL: ARU (Analytical role, unclassified); COS (Cosmetic use); FFD (Food or feed use); NUU (Other use, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(compns. contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT 50-70-4D, Sorbitol, esters 50-81-7, Vitamin C, biological studies 52-90-4, L-Cysteine, biological studies 57-10-3, Palmitic acid, biological studies 57-10-3D, Palmitic acid, glycerides 57-11-4, Stearic acid, biological studies 57-41-0, Phenytoin 57-50-1, Sucrose,

biological studies 57-55-6, Propylene glycol, biological studies 58-08-2, Caffeine, biological studies 58-95-7, Tocopherol acetate 59-02-9, .alpha.-Tocopherol 60-33-3, Linoleic acid, biological studies 60-33-3D, Linoleic acid, glycerides 62-53-3, Aniline, biological studies 63-42-3, Lactose 63-68-3, L-Methionine, biological studies 64-17-5, Ethanol, biological studies 67-56-1, Methanol, biological studies 67-63-0, Isopropanol, biological studies 69-93-2, Uric acid, biological studies 70-18-8, Reduced glutathione, biological studies 71-23-8, Propanol, biological studies 71-36-3, Butanol, biological studies 74-79-3, L-Arginine, biological studies 77-09-8, Phenolphthalein 87-99-0, Xylitol 90-05-1, Guaiacol 106-69-4, 1,2,6-Hexanetriol 107-21-1, Ethylene glycol, biological studies 107-35-7, Taurine 108-95-2, Phenol, biological studies 110-27-0, Isopropyl myristate 110-36-1, Butyl myristate 112-53-8, Lauryl alcohol 112-72-1, Myristyl alcohol 112-80-1, Oleic acid, biological studies 112-80-1D, Oleic acid, glycerides 112-85-6, Behenic acid 112-86-7, Erucic acid 112-92-5, Stearyl alcohol 122-99-6, Phenoxyethanol 124-07-2D, Caprylic acid, glycerides 124-07-2D, Octanoic acid, hydroxylated polyisobutenyl derivs. 127-17-3, biological studies 127-82-2, Zinc phenol sulfonate 128-44-9, Sodium saccharinate 141-22-0, Ricinoleic acid 142-91-6, Isopropyl palmitate 143-07-7, Lauric acid, biological studies 143-07-7D, Lauric acid, glycerides 143-28-2, Oleyl alcohol 302-04-5, Thiocyanate, biological studies 334-48-5D, Capric acid, glycerides 364-98-7, Diazoxide 404-86-4, Capsaicin 463-40-1, Linolenic acid 463-40-1D, Linolenic acid, glycerides 506-30-9, Arachidic acid 526-84-1, Dihydroxymaleic acid 527-60-6, Mesitol 538-23-8, Octanoic acid triglyceride 540-11-4, Ricinoleyl alcohol 544-63-8, Myristic acid, biological studies 544-63-8D, Myristic acid, alkyl esters 544-63-8D, Myristic acid, glycerides 546-46-3, Zinc citrate 553-72-0, Zinc benzoate 557-34-6, Zinc acetate 585-86-4, Lactitol 616-91-1, N-Acetyl-L-cysteine 621-71-6 628-97-7, Ethyl palmitate 629-98-1, Erucyl alcohol 661-19-8, Behenyl alcohol 1300-26-1, Zinc glycerophosphate 1314-13-2, Zinc oxide, biological studies 1314-22-3, Zinc peroxide 1330-70-7, Hydroxystearic acid 1332-07-6, Zinc **borate** 1406-18-4, Vitamin E 1464-42-2, Selenomethionine 2599-01-1, Cetyl myristate 2724-58-5, Isostearic acid 2814-60-0 3068-00-6, 1,2,4-Butanetriol 3460-37-5, Hexyl stearate 3486-35-9, Zinc carbonate 3614-08-2, Selenocysteine 4345-03-3 4468-02-4, Zinc gluconate 5333-42-6, 2-Octyl-dodecanol 7235-40-7, .beta.-Carotene 7631-86-9, Silica, biological studies 7646-85-7, Zinc chloride, biological studies 7681-49-4, Sodium fluoride, biological studies 7699-45-8, Zinc bromide 7733-02-0, Zinc sulfate 7779-88-6, Zinc nitrate 7782-49-2, Selenium, biological studies 9001-48-3, Glutathione reductase 9003-20-7, Polyvinyl acetate 9003-99-0, Peroxidase 9004-61-9, Hyaluronic acid 9005-00-9, Steareth-2 9005-63-4D, Polyoxyethylenesorbitan, fatty acid esters 9007-43-6, Cytochrome c, biological studies 9013-66-5, Glutathione peroxidase 10191-41-0, DL-.alpha.-Tocopherol 10401-55-5, Cetyl ricinoleate 11103-57-4, Vitamin A 11126-29-7, Zinc silicate 12441-09-7D, Sorbitan, fatty acid esters 12651-25-1, Zinc titanate 13463-41-7, Zinc pyrithione 13826-88-5, Zinc **tetrafluoroborate** 14281-83-5, Zinc glycinate 16283-36-6, Zinc salicylate 16871-71-9, Zinc hexafluorosilicate 16887-00-6, Chloride, biological studies 16984-48-8, Fluoride, biological studies 18312-31-7, Stearyl octanoate 20461-54-5, Iodide, biological studies 24959-67-9, Bromide, biological studies 25231-21-4, Polypropylene glycol stearyl ether 25265-75-2, Butylene glycol 25322-68-3, Polyethylene glycol 25322-69-4, Polypropylene glycol 25618-55-7D, Polyglycerin, fatty acid esters 26281-43-6,

3,5-Dichloro-2-hydroxybenzenesulfonic acid 27458-93-1, Isostearyl alcohol 32797-18-5, 1,3-Butadien-1-ol 36653-82-4, Hexadecyl alcohol **38304-91-5**, Minoxidil 39467-17-9, Zinc stannate 51744-92-4, .alpha.-Tocopheryl linoleate 52225-20-4 52296-98-7, Octadecanediol 71276-50-1, .alpha.-Tocopherol phosphate 77752-14-8, Purcellin oil 476494-41-4
RL: COS (Cosmetic use); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(compns. contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT 67-66-3, Chloroform, biological studies 9003-01-4, Polyacrylic acid 9003-07-0, Polypropylene 9004-57-3, Ethyl cellulose 9004-64-2, Hydroxypropylcellulose 9004-65-3, Hydroxypropylmethylcellulose 9004-67-5, Methylcellulose 9005-25-8D, Starch, derivs
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(compns. contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT 9054-89-1P, Superoxide dismutase
RL: ANT (Analyte); BSU (Biological study, unclassified); COS (Cosmetic use); FFD (Food or feed use); PRP (Properties); PUR (Purification or recovery); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(copper-zinc-contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT 83-88-5, Riboflavine, uses 298-83-9, Nitroblue tetrazolium
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(detn. of SOD by PAGE; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT 9003-05-8, Polyacrylamide
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(detn. of SOD by PAGE; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT 9000-01-5, Gumarabic
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(drug delivery system contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT 53-57-6, NADPH
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(pentose monophosphate shunt pathway enzymes regenerating; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT 11062-77-4, Superoxide
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT 9000-92-4, Amylase
RL: COS (Cosmetic use); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(purifn. and characterization of autoclavable superoxide dismutase

(SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

IT 7447-40-7, Potassium chloride (KCl), uses 7783-20-2, Ammonium sulfate, uses 9013-34-7, DEAE cellulose
RL: NUU (Other use, unclassified); USES (Uses)
(purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

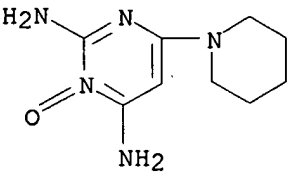
RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Beuno; Plant Physiol 1995, V108, P1151
(2) Gudin; US 5536654 A 1996 HCAPLUS
(3) Gupta; PNAS, USA 1993, V90, P1629 MEDLINE
(4) Miyata; US 4563349 A 1986 HCAPLUS

IT **38304-91-5**, Minoxidil
RL: COS (Cosmetic use); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(compns. contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from Potentilla atrosanguinea, and use of SOD in cosmetic, food and pharmaceutical compns.)

RN 38304-91-5 HCAPLUS
CN 2,4-Pyrimidinediamine, 6-(1-piperidinyl)-, 3-oxide (9CI) (CA INDEX NAME)



L70 ANSWER 3 OF 53 HCAPLUS COPYRIGHT 2003 ACS
AN 2002:833527 HCAPLUS
DN 137:338627
TI Polymeric articles containing hindered amine stabilizers based on multi-functional carbonyl compounds
IN Sassi, Thomas P.
PA USA
SO U.S. Pat. Appl. Publ., 40 pp., Cont.-in-part of U.S. Ser. No. 704,840.
CODEN: USXXCO
DT Patent
LA English
IC ICM C08K005-34
NCL 524099000
CC 37-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 42, **62**, 74

FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 2002161075	A1	20021031	US 2001-87266	20011025
PRAI US 2000-704840	A2	20001103		

AB Polymeric articles contg. at least one polymeric material and a sufficient amt. of at least one novel hindered amine stabilizers to inhibit at least one of photo- or thermal degrdn. The hindered amine light stabilizer may be a monomeric or an oligomeric hindered amine light stabilizer. 2,2,6,6-Tetramethylpiperidin-4-yl 6-(2,2,6,6-tetramethyl-4-

piperidinoxycarbonyl amino)hexanoate was prepd. and used in stabilization of polypropylene.
ST hindered amine stabilizer
IT Polyurethanes, preparation
RL: **IMF (Industrial manufacture)**; POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(acrylic; polymeric articles contg. hindered amine stabilizers based on multi-functional carbonyl compds.)
IT Transparent materials
(coatings; polymeric articles contg. hindered amine stabilizers based on multi-functional carbonyl compds.)
IT Polyimides, properties
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
(polyamide-; polymeric articles contg. hindered amine stabilizers based on multi-functional carbonyl compds.)
IT Polyimides, properties
Polysulfones, properties
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
(polyether-; polymeric articles contg. hindered amine stabilizers based on multi-functional carbonyl compds.)
IT Polyamides, properties
Polyethers, properties
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
(polyimide-; polymeric articles contg. hindered amine stabilizers based on multi-functional carbonyl compds.)
IT Antioxidants
Cosmetics
Dyes
Heat stabilizers
Inks
Light stabilizers
Paper
Photographic paper
UV stabilizers
(polymeric articles contg. hindered amine stabilizers based on multi-functional carbonyl compds.)
IT Alkyd resins
Aminoplasts
Epoxy resins, properties
Linear low density polyethylenes
Natural rubber, properties
Phenolic resins, properties
Polyamides, properties
Polycarbonates, properties
Polyesters, properties
Polyethers, properties
Polyimides, properties
Polyketones
Polyolefins
Polyoxymethylenes, properties
Polyoxyphenylenes
Polysulfones, properties
Polythiophenylenes
Polyurethanes, properties
Synthetic rubber, properties
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
(polymeric articles contg. hindered amine stabilizers based on

multi-functional carbonyl compds.)

IT Polyethers, properties
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
(polysulfone-; polymeric articles contg. hindered amine stabilizers based on multi-functional carbonyl compds.)

IT Acrylic polymers, preparation
RL: **IMF (Industrial manufacture)**; POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(polyurethane-; polymeric articles contg. hindered amine stabilizers based on multi-functional carbonyl compds.)

IT Coating materials
(transparent; polymeric articles contg. hindered amine stabilizers based on multi-functional carbonyl compds.)

IT 74-85-1D, Ethene, polymers with .alpha.-olefins
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
(LLDPE; polymeric articles contg. hindered amine stabilizers based on multi-functional carbonyl compds.)

IT 9003-53-6
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
(impact-resistant; polymeric articles contg. hindered amine stabilizers based on multi-functional carbonyl compds.)

IT 439689-26-6P 439689-27-7P 439689-29-9P 439689-30-2P 439689-32-4P
439689-33-5P 439689-35-7P 439932-78-2P 439932-82-8P 474043-45-3P
RL: **IMF (Industrial manufacture)**; MOA (Modifier or additive use); **PREP (Preparation)**; USES (Uses)
(polymeric articles contg. hindered amine stabilizers based on multi-functional carbonyl compds.)

IT 225529-96-4P, DESMODUR N-3390-JONCRYL CDX-588 copolymer
RL: **IMF (Industrial manufacture)**; POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(polymeric articles contg. hindered amine stabilizers based on multi-functional carbonyl compds.)

IT 13177-43-0P 70288-80-1P 92858-40-7P 439689-28-8P 439689-31-3P
439689-37-9P 443678-52-2P 443678-53-3P
RL: **IMF (Industrial manufacture)**; RCT (Reactant); **PREP (Preparation)**; RACT (Reactant or reagent)
(polymeric articles contg. hindered amine stabilizers based on multi-functional carbonyl compds.)

IT 106-89-8D, Epichlorohydrin, reaction products with 7,7,9,9-tetramethyl-2-cycloundecyl-1-oxa-3,8-diaza-4-oxospiro[4.5]decane 128-37-0, 2,6-Di-tert-butyl-4-methylphenol, uses 131-56-6, 2,4-Dihydroxybenzophenone 131-57-7, 2-Hydroxy-4-methoxybenzophenone 976-56-7, Diethyl-3,5-di-tert-butyl-4-**hydroxybenzylphosphonate** 1470-79-7 **1668-53-7**, 2-(2,4-Dihydroxyphenyl)-4,6-bis(2,4-dimethylphenyl)-1,3,5-triazine 1709-70-2, 1,3,5-Tris(3,5-di-tert-butyl-4-hydroxybenzyl)-2,4,6-trimethylbenzene 1843-03-4, 1,1,3-Tris(5-tert-butyl-4-hydroxy-2-methylphenyl)butane 1843-05-6, 2-Hydroxy-4-octyloxybenzophenone 2162-63-2, 2-Hydroxy-4-decyloxybenzophenone 2440-22-4, 2-(2'-Hydroxy-5'-methylphenyl)-benzotriazole **2725-22-6** 2985-59-3, 2-Hydroxy-4-dodecyloxybenzophenone 3135-18-0, Dioctadecyl-3,5-di-tert-butyl-4-**hydroxybenzylphosphonate** 3147-75-9, 2-(2'-Hydroxy-5'-(1,1,3,3-tetramethylbutyl)phenyl)benzotriazole 3147-76-0 3147-77-1 3846-71-7 3864-99-1, 2-(3',5'-Di-tert-butyl-2'-hydroxyphenyl)-5-chlorobenzotriazole 3896-11-5 6079-76-1, 2-Hydroxy-4-benzyloxybenzophenone 6131-38-0 10176-09-7 **13681-75-9** 23128-74-7 23328-53-2 25973-55-1 27676-62-6,

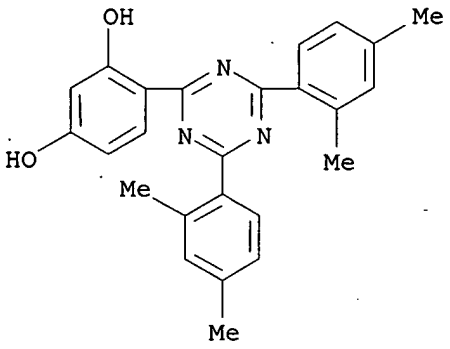
1,3,5-Tris(3,5-di-tert-butyl-4-hydroxybenzyl)isocyanurate 32687-78-8
35958-30-6, 2,2'-Ethylidene-bis(4,6-di-tert-butylphenol) 36437-37-3
40075-75-0 40601-76-1 41556-26-7, Bis(1,2,2,6,6-pentamethylpiperidin-4-yl)sebacate 52829-07-9, Bis(2,2,6,6-tetramethylpiperidin-4-yl) sebacate
62782-03-0, Bis(2,2,6,6-tetramethylpiperidin-4-yl)succinate 63843-89-0
64022-57-7, Tris(2,2,6,6-tetramethylpiperidin-4-yl) nitrilotriacetate
64022-61-3, Tetrakis(2,2,6,6-tetramethylpiperidin-4-yl)-1,2,3,4-butanetetracarbox ylate 64337-97-9 69851-61-2 70198-29-7,
1-(2-Hydroxyethyl)-2,2,6,6-tetramethyl-4-hydroxypiperidine-succinic acid copolymer 70321-86-7 71029-16-8 **72058-42-5** 79720-19-7
82451-48-7 82537-67-5, 8-Acetyl-3-dodecyl-7,7,9,9-tetramethyl-1,3,8-triazaspiro[4.5]decane-2,4-dione 83044-89-7 83044-90-0
83044-91-1 84268-22-4 84268-23-5 84268-33-7 104564-32-1,
4-Stearyloxy-2,2,6,6-tetramethylpiperidine **106556-36-9**,
2-(2-Hydroxy-4-methoxyphenyl)-4,6-diphenyl-1,3,5-triazine 106917-30-0
106917-31-1 122586-52-1, Bis(1-octyloxy-2,2,6,6-tetramethylpiperidin-4-yl)sebacate 122586-95-2 **131290-55-6** 131747-52-9
137658-77-6 144757-53-9 145983-67-1
147315-50-2 148236-55-9 154825-62-4
168921-81-1 178905-31-2 214692-65-6
219991-91-0 222557-48-4 474043-37-3 474043-38-4 **474043-40-8**
474043-41-9D, reaction products with epichlorohydrin **474043-42-0**
474043-43-1 474043-44-2
RL: MOA (Modifier or additive use); USES (Uses)
(polymeric articles contg. hindered amine stabilizers based on multi-functional carbonyl compds.)

IT **9003-08-1**, Formaldehyde-melamine copolymer 9003-35-4, Formaldehyde-phenol copolymer 9003-54-7, SAN copolymer 9003-56-9, ABS copolymer 9004-36-8, Cellulose acetate butyrate 9011-05-6, Formaldehyde-urea copolymer 24938-67-8, PPO 25038-54-4, Nylon 6, properties 25085-53-4, PROFAX 6501
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
(polymeric articles contg. hindered amine stabilizers based on multi-functional carbonyl compds.)

IT 105-60-2, Caprolactam, reactions 111-11-5, Methyl caprylate 542-52-9, Dibutyl carbonate 553-90-2, Dimethyl oxalate 616-38-6, Dimethylcarbonate 2403-88-5, 2,2,6,6-Tetramethyl-4-piperidinol 2403-89-6, 1,2,2,6,6-Pentamethyl-4-piperidinol
RL: RCT (Reactant); RACT (Reactant or reagent)
(polymeric articles contg. hindered amine stabilizers based on multi-functional carbonyl compds.)

IT **1668-53-7**, 2-(2,4-Dihydroxyphenyl)-4,6-bis(2,4-dimethylphenyl)-1,3,5-triazine
RL: MOA (Modifier or additive use); USES (Uses)
(polymeric articles contg. hindered amine stabilizers based on multi-functional carbonyl compds.)

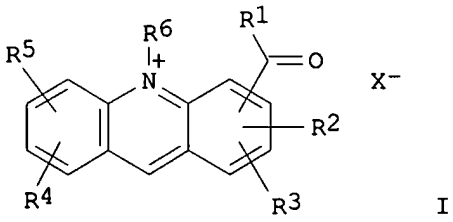
RN 1668-53-7 HCAPLUS
CN 1,3-Benzenediol, 4-[4,6-bis(2,4-dimethylphenyl)-1,3,5-triazin-2-yl]- (9CI) (CA INDEX NAME)



L70 ANSWER 4 OF 53 HCAPLUS COPYRIGHT 2003 ACS
AN 2002:271799 HCAPLUS
DN 136:299454
TI Oxidative hair dyes containing acridine aldehydes and acridine ketones
IN Moeller, Hinrich; Oberkobusch, Doris; Hoeffkes, Horst
PA Henkel K.-G.A.a., Germany
SO Ger. Offen., 14 pp.
CODEN: GWXXBX
DT Patent
LA German
IC ICM A61K007-13
ICS C07D219-02; C09B015-00
CC 62-3 (Essential Oils and **Cosmetics**)
Section cross-reference(s): 27
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DE 10047480	A1	20020411	DE 2000-10047480	20000926
PRAI DE 2000-10047480		20000926		

OS MARPAT 136:299454
GI



I

AB The invention concerns the synthesis of acridine aldehyde and acridine ketone derivs. and their application in oxidative hair dyes. Compds. of the general formula (I) are defined, where R1 = hydrogen atom, C1-4-Alkyl or group of aryls; R2, R3, R4 and a R5, same or different = a hydrogen atom, halogen atom, a C1-C4-Alkyl, C1-C4-Hydroxyalkyl, C1-C4-Alkoxy, C1-C4-Hydroxyalkoxy, hydroxy group, nitro group, sulfo group, amino group, which can be substituted by C1-C4-Alkyl, or a C1-C4-Acyl, whereby two of the groups can form a condensed arom. ring, whereby the groups of COR1,

R2, R3, R4 and R5 to any ring of the cyclic system; X- an anion, in particular halide, sulfonate, like benzene sulfonate, p-Toluene sulfonate, methanesulfonate or trifluoro methanesulfonate, Me sulfate, Et sulfate, perchlorate, sulfate, hydrogensulfate, **tetrafluoroborate** or tetrachlorozincate, alkanoate, whereby X- is absent if R6 is neg. charged; R6 = hydrogen atom, C1-4-Alkyl, C1-C4-Hydroxyalkyl, C1-C6 carboxyalkyl, C1-C6 sulfoalkyl, C1-4-aralkyl, heteroalkyl, neg. charged oxygen. Thus 9-formyl-10-methylacridinium-p-toluene sulfonate was synthesized from acridine-9-carboxaldehyde and p-toluene sulfonic acid Me ester. The product was used in combination with 3-methyl-p-aminophenol to yield a light brown hair color.

ST oxidative hair dye acridine aldehyde ketone

IT Nitriles, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(arom.; oxidative hair dyes contg. acridine aldehydes and acridine ketones)

IT Hair preparations
(dyes, oxidative; oxidative hair dyes contg. acridine aldehydes and acridine ketones)

IT Amines, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(heterocyclic, N-contg.; oxidative hair dyes contg. acridine aldehydes and acridine ketones)

IT Shampoos
(oxidative hair dyes contg. acridine aldehydes and acridine ketones)

IT Caseins, biological studies
Collagens, biological studies
Elastins
Keratins
Protein hydrolyzates
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(oxidative hair dyes contg. acridine aldehydes and acridine ketones)

IT Proteins
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(soy; oxidative hair dyes contg. acridine aldehydes and acridine ketones)

IT 56-87-1, L-Lysine, biological studies 59-48-3, Oxindole 59-92-7, DOPA, biological studies 60-18-4, L-Tyrosine, biological studies 62-53-3, Aniline, biological studies 63-91-2, L-Phenylalanine, biological studies 65-49-6, 4-Aminosalicylic acid 67-52-7, Barbituric acid 70-18-8, L-Glutathione, biological studies 70-26-8, Ornithine 71-00-1, L-Histidine, biological studies 73-22-3, L-Tryptophane, biological studies 74-79-3, L-Arginine, biological studies 77-32-7 83-30-7, 2,4,6-Trihydroxybenzoic acid 83-33-0, Indan-1-one 83-56-7, 1,5-Dihydroxynaphthalene 84-65-1, Anthraquinone 87-02-5, 7-Amino-4-hydroxynaphthalene-2-sulfonic acid 87-66-1, Pyrogallol 88-21-1, 2-Aminobenzene sulfonic acid 88-74-4, 2-Nitroaniline 89-57-6, 5-Aminosalicylic acid 89-86-1, 2,4-Dihydroxybenzoic acid 90-05-1, 2-Methoxyphenol 90-15-3, 1-Naphthol 90-20-0, 4-Amino-5-hydroxynaphthalene-2,7-disulfonic acid 91-29-2, 4'-Amino-4-nitrodiphenylamine-2-sulfonic acid 92-44-4, 2,3-Dihydroxynaphthalene 92-65-9, N-(2-Hydroxyethyl)-N-ethyl-p-phenylenediamine 95-54-5, o-Phenylenediamine, biological studies 95-55-6, 2-Aminophenol 95-70-5, 2,5-Diaminotoluene 95-88-5, 4-Chlororesorcin 96-91-3, Picramic acid 96-93-5, 3-Amino-4-hydroxy-5-nitrobenzene sulfonic acid 98-37-3, 3-Amino-4-hydroxybenzene sulfonic acid 98-79-3, Pyrrolidone-5-carboxylic acid 99-05-8, 3-Aminobenzoic acid 99-07-0, 3-Dimethylaminophenol 99-31-0, 5-Aminoisophthalic acid 99-50-3, 3,4-Dihydroxybenzoic acid

99-56-9, 1,2-Diamino-4-nitrobenzene 100-01-6, 4-Nitroaniline, biological studies 101-77-9, 4,4'-Diaminodiphenylmethane 101-80-4, 4,4'-Diamino-diphenyl ether 106-50-3, p-Phenylenediamine, biological studies 108-45-2, m-Phenylenediamine, biological studies 108-46-3, Resorcin, biological studies 108-72-5, 1,3,5-Triaminobenzene 108-73-6, Phloroglucine 109-00-2, 3-Hydroxypyridine 110-85-0, Piperazidine, biological studies 110-86-1, Pyridine, biological studies 118-12-7, 1,3,3-Trimethyl-2-methyleneindoline **118-70-7**, 4,5,6-Triamino pyrimidine 118-92-3, 2-Aminobenzoic acid 119-34-6, 4-Amino-2-nitrophenol 119-59-5, 4,4'-Diaminodiphenyl sulfoxide 119-70-0, 4,4'-Diaminodiphenylamine-2-sulfonic acid 120-72-9D, Indole, derivs. 121-47-1, 3-Aminobenzene sulfonic acid 121-57-3, 4-Aminobenzene sulfonic acid 123-30-8, 4-Aminophenol 123-31-9, Hydroquinone, biological studies 123-75-1, Pyrrolidine, biological studies 139-65-1, 4,4'-Diaminodiphenyl sulfide 141-84-4, Rhodanine 141-86-6, 2,6-Diamino pyridine 142-08-5, 2-Hydroxypyridine 147-85-3, L-Proline, biological studies 149-91-7, Gallic acid, biological studies 150-13-0, 4-Aminobenzoic acid 150-19-6, 3-Methoxyphenol 150-76-5, 4-Methoxy phenol **156-81-0**, 2,4-Diaminopyrimidine 260-94-6D, Acridine, derivs. 288-13-1, Pyrazole 288-32-4, Imidazole, biological studies 288-88-0, 1H-1,2,4-Triazole 452-58-4, 2,3-Diamino pyridine 462-08-8, 3-Amino pyridine 480-66-0 488-87-9, 2,5-Dimethylresorcin 496-15-1D, Indoline, derivs. 496-73-1, 4-Methylresorcin 498-94-2, Piperidine-4-carboxylic acid 504-15-4 504-17-6, Thiobarbituric acid 504-24-5, 4-Amino pyridine 504-29-0, 2-Amino pyridine 517-22-6, 2,4-Dimethyl-3-ethylpyrrole 533-31-3, 3,4-Methylenedioxyphenol 533-73-3, Hydroxyhydroquinone 535-75-1, Piperidine-2-carboxylic acid 535-87-5, 3,5-Diaminobenzoic acid 537-65-5, 4,4'-Diaminodiphenyl amine 553-86-6, Cumaranone 556-03-6, Tyrosine 570-24-1, 6-Nitro-o-toluidine 578-66-5, 8-Aminoquinoline 580-17-6, 3-Aminoquinoline 580-22-3, 2-Aminoquinoline 582-17-2, 2,7-Dihydroxynaphthalene 591-27-5, 3-Aminophenol 603-81-6, 2,3-Diaminobenzoic acid 606-23-5, 1H-Indene-1,3(2H)-dione 606-55-3 606-57-5, 2-Amino-1-nitronaphthalene 608-08-2, 3-Indoxylacetate 608-25-3, 2-Methylresorcin 610-74-2, 2,5-Diaminobenzoic acid 610-81-1, 4-Amino-3-nitrophenol 611-03-0, 2,4-Diaminobenzoic acid 611-98-3, 4,4'-Diaminobenzophenone 615-66-7, 2-Chloro-p-phenylenediamine 615-71-4, 1,2,4-Triaminobenzene 616-45-5, Pyrrolidone 616-47-7, 1-Methylimidazole 619-05-6, 3,4-Diaminobenzoic acid 623-09-6, 4-Methylaminoaniline 626-64-2, 4-Hydroxypyridine 636-25-9, 2,5-Diaminophenol 876-87-9 **1004-74-6**, 2,4,5,6-Tetraaminopyrimidine **1004-75-7**, 4-Hydroxy-2,5,6-triaminopyrimidine 1123-55-3, 7-Amino-benzothiazole 1125-60-6, 5-Aminoisoquinoline 1197-55-3, 4-Amino-phenylacetic acid 1455-77-2, 3,5-Diamino-1,2,4-triazole 1571-72-8, 3-Amino-4-hydroxybenzoic acid 1820-80-0, 3-Aminopyrazole 2374-03-0, 4-Amino-3-hydroxybenzoic acid 2380-84-9, 7-Hydroxyindole 2510-01-2 2654-52-6, 2,3-Dimethylbenzothiazolium-p-toluene sulfonate 2785-06-0, 2,3-Dimethylbenzothiazoliumiodide 2835-95-2, 2-Methyl-5-aminophenol 2835-99-6, 3-Methyl-p-aminophenol 2871-01-4, HC Red 3 3131-52-0, 5,6-Dihydroxyindole 3158-63-2, 1,3-Dimethylthiobarbituric acid 3167-49-5, 6-Aminonicotinic acid 3301-75-5, Benz[c]acridine-7-carboxaldehyde 3769-62-8, Gallion 3855-78-5, 2,3,4-Trimethylpyrrole 4318-76-7, 2,5-Diamino pyridine 4331-29-7, 7-Aminobenzimidazole 4506-66-5, 1,2,4,5-Tetraaminobenzene-tetrahydrochloride 4928-43-2, 2-Dimethylamino-5-amino pyridine 5007-67-0, 3,3',4,4'-Tetraaminobenzophenone 5099-39-8, 2-[2-(Diethylamino)ethylamino]-5-nitroaniline 5131-58-8 5192-03-0, 5-Aminoindole 5192-04-1, 7-Aminoindole 5192-23-4, 4-Aminoindole 5217-47-0, 1,3-

Diethylthiobarbituric acid 5307-14-2, 1,4-Diamino-2-nitrobenzene 5318-27-4, 6-Aminoindole 5418-63-3, 1,2,3,3-Tetramethyl-3H-indoliumiodide 5434-20-8, 3-Aminophthalic acid 5718-83-2, Rhodanine-3-acetic acid 5850-35-1, Acid blue 29 5930-28-9, 2,6-Dichloro-4-aminophenol 5959-52-4, 3-Amino-2-naphthoic acid 6201-65-6, 2-Chlororesorcin 6222-46-4, Palatine chrome green GC 6247-27-4, Mordant brown 4 6259-50-3, 6-Dimethylamino-4-hydroxy-2-naphthalene sulfonic acid 6358-09-4, 2-Amino-6-chloro-4-nitrophenol 6399-72-0, 6-Amino-7-hydroxynaphthalene-2-sulfonic acid 6628-04-2, 4-Aminoquinaldine 6634-82-8, 4-Amino-4'-nitrostilbene-2,2'-disulfonic acid disodium salt 6967-12-0, 6-Aminoindazole 7074-03-5 7336-20-1 7411-49-6, [1,1'-Biphenyl]-3,3',4,4'-tetramine, tetrahydrochloride 7722-84-1, Hydrogen peroxide, biological studies **7749-47-5**, 2-Amino-4-methoxy-6-methylpyrimidine 7768-28-7, 2-(2-Hydroxyethyl)phenol 10173-66-7, 1-Amino-4-nitro-2-(2-nitrobenzylideneamino)benzene 10228-97-4 **13754-19-3**, 4,5-Diaminopyrimidine 14268-66-7, 3,4-Methylenedioxyaniline 16082-33-0, 3,5-Diaminopyrazole 16859-86-2, 1,4-Dimethylquinolinium-iodide 16867-03-1, 2-Amino-3-hydroxy-pyridine 19335-11-6, 5-Aminoindazole 20103-09-7, 2,5-Dichloro-p-phenylenediamine **22715-34-0**, 2-Hydroxy-4,5,6-triaminopyrimidine 23244-87-3, 2,4,5-Triaminopyridine 23894-07-7, 3,6-Dihydroxy-2,7-naphthalene disulfonic acid 24119-24-2, N,N-Bis-[2-(4-aminophenoxy)ethyl]methylamine , trihydrochloride 24905-87-1, HC Red 7 28020-38-4, 2,3-Diamino-6-methoxypyridine 29705-39-3 31835-64-0, 3-Amino-3'-nitrobiphenyl 31905-57-4, Nitrophenylenediamine 41927-50-8 42952-29-4, 1-Ethyl-2-methylnaphtho[1,2-d]thiazolium-p-toluene sulfonate 43093-74-9, Phenol, aminonitro- 46791-37-1 50610-28-1 51387-92-9, Phenol, 4-amino-2-[(diethylamino)methyl]- 54381-16-7, N,N-Bis(2-hydroxyethyl)-p-phenylenediamine sulfate 55302-96-0, 2-Methyl-5-(2-hydroxyethylamino)-phenol 56932-44-6, HC Yellow 5 58480-17-4, 1,2-Dimethylnaphtho[1,2-d]thiazolium-p-toluene sulfonate 61224-35-9, 1,2,3,3-Tetramethyl-3H-indolium-p-toluene sulfonate 61693-42-3, 3-Amino-2,4-dichloro phenol **62496-02-0**, 2-Methylamino-4,5,6-triamino-pyrimidine 63969-46-0, Bis(5-amino-2-hydroxyphenyl)methane 64993-07-3, 5-Amino-6-nitrobenzo-1,3-dioxole 66635-40-3, 4,4'-Diaminostilbene-dihydrochloride 68391-32-2 69825-83-8, 6-Nitro-2,5-diaminopyridine 70643-19-5, 2,4-Diaminophenoxyethanol 74586-24-6 74918-21-1, 1,3-Bis(2,4-diaminophenoxy)propane, tetrahydrochloride 77484-77-6, 3-Amino-6-methylamino-2-nitropyridine 79352-72-0, 4-Amino-2-aminomethylphenol 82576-75-8, HC Violet 1 83763-47-7, 2-Amino-4-(2-hydroxyethylamino)anisole 84540-47-6, 2,6-Dihydroxy-3,4-dimethylpyridine 84540-50-1, 6-Methyl-3-amino-2-chloro phenol 85679-78-3, 3,5-Diamino-2,6-dimethoxypyridine 85926-99-4, 4-Hydroxyindoline 90817-34-8, 3-Amino-2-methylamino-6-methoxypyridine 93841-24-8, 2-(2,5-Diaminophenyl)ethanol 93923-57-0 95576-89-9, HC Red 10 104333-09-7, 2-Hydroxymethyl-4-aminophenol 110102-86-8, 2-Methyl-5-amino-4-chloro phenol 110952-48-2, Phenol, 4-amino-2-[(dimethylamino)methyl]- 113139-13-2, Acridine-1-carboxaldehyde 113139-14-3, Acridine-2-carboxaldehyde 113139-15-4, Acridine-3-carboxaldehyde 113139-16-5, Acridine-4-carboxaldehyde
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(oxidative hair dyes contg. acridine aldehydes and acridine ketones)

IT 114402-54-9, 1,3-Bis(4-aminophenylamino)propane 115423-86-4, 1,3-Diamino-2,4-dimethoxybenzene 117907-43-4 126335-41-9, 2,5-Diaminophenetole 128729-30-6, 1,3-Bis[N-(4-aminophenyl)-2-hydroxyethylamino]-2-propanol 130582-56-8, 1,3-Bis(4-aminophenylamino)-2-propanol 137290-86-9, 5-(2-Hydroxyethylamino)-4-methoxy-2-methylphenol

144644-13-3, 1,8-Bis(2,5-diaminophenoxy)-3,6-dioxaoctane, tetrahydrochloride 155601-17-5, 4,5-Diamino-1-(2-hydroxyethyl)pyrazole 155758-48-8 159519-79-6, Brenzcatechin 159661-42-4, 2,5-Dihydroxy-4-morpholinoaniline 202525-71-1, 2,5-Dihydroxy-4-morpholinoaniline-dihydrobromide 202525-73-3, 2,4,5-Triaminophenol-trihydrochloride 202525-74-4, Pentaaminobenzene-pentahydrochloride 202525-75-5, Hexaaminobenzene-hexahydrochloride 202525-76-6, 2,4,6-Triaminoresorcin-trihydrochloride 202525-77-7 202525-78-8, 4,6-Diaminopyrogallol-dihydrochloride 202525-79-9 211872-02-5 215377-52-9, 3,4-Methylenediaminoaniline 220118-56-9, 1,2,3,3-Tetramethyl-3H-indolium-methane sulfonate 223383-77-5, 4-Amino-3-hydroxynaphthalene-sulfonic acid 260981-02-0, N-(2-Methoxyethyl)-p-phenylenediamine 260981-03-1, 2,3-Dichloro-p-phenylenediamine 262853-93-0, Piperidine-3-carboxylic acid 346593-13-3, 3-Amino-4-nitroacenaphthene 408327-11-7 408327-13-9 408327-15-1 408327-19-5 408327-21-9 408327-23-1 408327-25-3 408327-27-5 408327-29-7 408327-31-1 408327-34-4 408327-36-6 408327-38-8 408327-40-2 408327-45-7 408327-48-0 408327-52-6 408327-61-7
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(oxidative hair dyes contg. acridine aldehydes and acridine ketones)

IT 885-23-4, Acridine-9-carboxaldehyde
RL: COS (Cosmetic use); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(oxidative hair dyes contg. acridine aldehydes and acridine ketones)

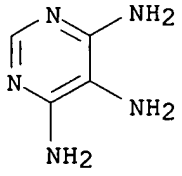
IT 149969-54-0P 408327-08-2P
RL: COS (Cosmetic use); **SPN (Synthetic preparation)**; BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(oxidative hair dyes contg. acridine aldehydes and acridine ketones)

IT 77-78-1, Dimethyl sulfate 80-48-8, p-Toluene sulfonic acid methyl ester 138-89-6, N,N-Dimethyl p-nitrosoaniline 611-64-3, 9-Methylacridine
RL: RCT (Reactant); RACT (Reactant or reagent)
(oxidative hair dyes contg. acridine aldehydes and acridine ketones)

IT 41922-14-9P, 9,10-Dimethylacridinium methylsulfate
RL: RCT (Reactant); **SPN (Synthetic preparation)**; **PREP (Preparation)**; RACT (Reactant or reagent)
(oxidative hair dyes contg. acridine aldehydes and acridine ketones)

IT **118-70-7**, 4,5,6-Triamino pyrimidine
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(oxidative hair dyes contg. acridine aldehydes and acridine ketones)

RN 118-70-7 HCAPLUS
CN 4,5,6-Pyrimidinetriamine (9CI) (CA INDEX NAME)



L70 ANSWER 5 OF 53 HCAPLUS COPYRIGHT 2003 ACS
AN 2002:90516 HCAPLUS
DN 136:139594
TI Topical compositions comprising protected functional thiols
IN Glenn, Robert Wayne; Katritzky, Alan Roy; Block, Eric; Shair, Matthew

David; Ehlis, Thomas; Lupia, Joseph Anthony
PA USA
SO U.S. Pat. Appl. Publ., 40 pp., Cont.-in-part of U.S. Ser. No. 478,855.
CODEN: USXXCO
DT Patent
LA English
IC C07D043-02
ICM A61K007-42
NCL 424059000
CC 62-1 (Essential Oils and **Cosmetics**)
Section cross-reference(s): 28, 40, 63
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002012639	A1	20020131	US 2001-755817	20010105
	US 6495125	B2	20021217		
	US 6544499	B1	20030408	US 2000-478855	20000107
PRAI	US 1999-115278P	P	19990108		
	US 1999-129453P	P	19990415		
	US 2000-478855	A2	20000107		

OS MARPAT 136:139594
AB A topical compn. for treating amino acid-based substrates, such as hair, fur, or nails, comprises a protected thiol compd. The invention further relates to systems which comprise this protected thiol compd. and an activating mechanism. The protected thiol compds. of the present invention may be used in hair care compns., textile care compns., cosmetic compns., oral care compns., skin care, nail care, laundry care, acne care and animal care compns. Preferred embodiments of the present invention provide a modified UV absorber and a modified antioxidant, methods for making them and compns. comprising them. For example, a UV absorber compn. contained 3-benzotriazol-2-yl-N-(2-bromoethyl)-5-sec-butyl-4-hydroxybenzene sulfonamide (prepn. given) 3.00%, urea 10.00%, cocoamidopropyl betaine 0.80%, isopropanol 50.00%, and water up to 100%. The compn. can be applied simultaneously with a 5% soln. of thioglycolic acid from a kit wherein the treatment soln. and the thioglycolic acid are packaged in sep. chambers of a dual chamber package.
ST thiol prepn antioxidant UV absorber topical; cosmetic hair prepn thiol antioxidant UV absorber
IT Animal
Textiles
(care products; topical compns. comprising protected functional thiols as UV absorbers and antioxidants for amino acid-based substrates)
IT Hand
Nail (anatomical)
(fingernail; topical compns. comprising protected functional thiols as UV absorbers and antioxidants for amino acid-based substrates)
IT Foot
Nail (anatomical)
(toenail; topical compns. comprising protected functional thiols as UV absorbers and antioxidants for amino acid-based substrates)
IT Antioxidants
Cosmetics
Dentifrices
Fur
Hair
Hair preparations
UV stabilizers
(topical compns. comprising protected functional thiols as UV absorbers

and antioxidants for amino acid-based substrates)

IT Amino acids, biological studies
Keratins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(topical compns. comprising protected functional thiols as UV absorbers and antioxidants for amino acid-based substrates)

IT Thiols (organic), biological studies
RL: COS (Cosmetic use); NUU (Other use, unclassified); **SPN (Synthetic preparation)**; BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(topical compns. comprising protected functional thiols as UV absorbers and antioxidants for amino acid-based substrates)

IT Acne
(treatment; topical compns. comprising protected functional thiols as UV absorbers and antioxidants for amino acid-based substrates)

IT 83517-25-3P 86763-35-1P **282529-95-7P** **282530-02-3P**
282530-06-7P **282530-12-5P** 282530-15-8P 282530-19-2P
282530-23-8P 282530-31-8P 282530-34-1P 282530-38-5P
282530-41-0P 282530-44-3P 282530-45-4P 282530-46-5P 282530-52-3P
282530-65-8P **393185-84-7P** 393185-85-8P
393185-86-9P 393185-87-0P
RL: COS (Cosmetic use); NUU (Other use, unclassified); **SPN (Synthetic preparation)**; BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(prepn. of protected functional thiols as UV absorbers and antioxidants)

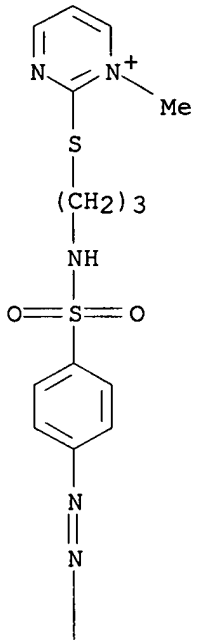
IT 60-56-0, 2-Mercapto-1-methylimidazole 75-36-5, Acetyl chloride 96-33-3, Methyl acrylate 100-11-8, 4-Nitrobenzyl bromide 102-52-3, Malonaldehyde bis(dimethyl acetal) 112-67-4, Palmitoyl chloride 112-82-3, 1-Bromohexadecane 121-60-8, N-Acetylsulfanilyl chloride 135-19-3, 2-Naphthol, reactions 140-89-6 149-91-7, Gallic acid, reactions 598-52-7, 1-Methyl-2-thiourea 605-65-2, 5-Dimethylaminonaphthalene-1-sulfonyl chloride 631-67-4, N,N-Dimethylthioacetamide 694-85-9, 1-Methyl-2-pyridone 2043-53-0, 1-Iodo-1H,1H,2H,2H-perfluorodecane 2576-47-8, 2-Bromoethylamine hydrobromide 2917-26-2, 1-Hexadecanethiol 5003-71-4, 3-Bromopropylamine hydrobromide 5394-18-3, N-(4-Bromobutyl)phthalimide 24517-45-1, 2-(Methylsulfonyl)ethanethiol 27081-10-3, Tropylium **tetrafluoroborate** 33252-63-0, 5-(Trifluoromethyl)-2-pyridinol 50816-19-8, 8-Bromo-1-octanol 282530-04-5 340964-11-6 393185-89-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of protected functional thiols as UV absorbers and antioxidants)

IT 2044-27-1P 31098-39-2P 73547-86-1P, 1-Methyl-2(1H)-Pyrimidinethione 78234-05-6P 83626-75-9P, 3-(4-Aminophenylsulfonamido)propyl bromide 92647-21-7P 201160-48-7P 282529-99-1P 282530-10-3P 282530-21-6P 282530-25-0P, 8-Bromooctyl gallate 282530-29-4P, 3-Bromopropyl gallate 282530-48-7P 282530-50-1P 393185-88-1P
RL: RCT (Reactant); **SPN (Synthetic preparation)**; **PREP (Preparation)**; RACT (Reactant or reagent)
(prepn. of protected functional thiols as UV absorbers and antioxidants)

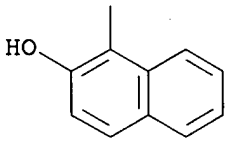
IT **282529-95-7P**
RL: COS (Cosmetic use); NUU (Other use, unclassified); **SPN (Synthetic preparation)**; BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(prepn. of protected functional thiols as UV absorbers and antioxidants)

RN 282529-95-7 HCAPLUS
CN Pyrimidinium, 2-[[3-[[[4-[(2-hydroxy-1-naphthalenyl)azo]phenyl]sulfonyl]amino]propyl]thio]-1-methyl-, bromide (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



● Br^-

L70 ANSWER 6 OF 53 HCAPLUS COPYRIGHT 2003 ACS
AN 2001:868163 HCAPLUS
DN 136:10881
TI Hair dyes containing derivatives of quaternized heteroarom. aldehyde and/or a quaternized heteroarom. ketone
IN Moeller, Hinrich; Oberkobusch, Doris; Hoeffkes, Horst
PA Henkel Kommanditgesellschaft auf Aktien, Germany
SO PCT Int. Appl., 31 pp.
CODEN: PIXXD2
DT Patent
LA German

IC ICM A61K007-13
CC 62-3 (Essential Oils and **Cosmetics**)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001089460	A2	20011129	WO 2001-EP5497	20010515
	WO 2001089460	A3	20020620		
	W: AU, JP, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
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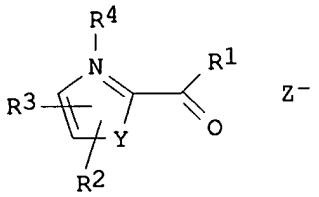
PRAI	DE 2000-10025672	A	20000524		

OS MARPAT 136:10881
GI



I

AB The invention concerns hair dyes that contain quaternized heteroarom. aldehyde and/or a quaternized heteroarom. ketone derivs. of the general formula (I), and a second dye that contains amino or hydroxy groups; the compns. color hair without the addn. of oxidative agents. In formula I R represents a hydrogen atom, a C-C alkyl group, C-C sulfoalkyl group, C-C carboxyalkyl group, aryl group or heteroaryl group, R and R represent a hydrogen atom, halogen atom, a C-C alkyl group, a C-C alkoxy group, a C-C hydroxyalkoxy group, a C-C hydroxyalkyl group, a hydroxy group, a nitro group or an amino group, which can be substituted by C-C alkyl groups that can also form a heterocyclic ring together with the nitrogen atom, whereby the two groups R and R can together form a condensed arom. ring, R represents a C-C alkyl group, C-C alkenyl group, aryl group, aralkyl group, C-C carboxyalkyl group or C-C sulfoalkyl group, Y represents an NR group, whereby R is a C-C alkyl group, aralkyl group or aryl group, an oxygen atom, sulfur atom or an optionally substituted methylene group, and Z- represents an anion, in particular halide, benzene sulfonate, p-toluene sulfonate, methane sulfonate, Me sulfate, Et sulfate, trifluoromethane sulfonate, perchlorate, sulfate, hydrogen sulfate, **tetrafluoroborate** or tetrachlorozincate. The compds. of formula I can also be present as acetals or oximes. Thus 1,3-dimethyl-2-formyl-benzimidazolium methanesulfonate was synthesized from 2-formyl-1-methylbenzimidazole and methanesulfonic acid methylester. The product was used with 3-amino-2-methylamino-6-methoxypyridine for dyeing hair.

ST hair dye quaternized heteroaryl aldehyde ketone
IT Ketones, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(arom., heteroaryl; hair dyes contg. derivs. of quaternized heteroarom. aldehyde and/or a quaternized heteroarom. ketone)
IT Hair preparations
(dyes; hair dyes contg. derivs. of quaternized heteroarom. aldehyde and/or a quaternized heteroarom. ketone)

IT pH
(hair dyes contg. derivs. of quaternized heteroarom. aldehyde and/or a quaternized heteroarom. ketone)
IT Acetals
Carbonates, biological studies
Caseins, biological studies
Elastins
Halides
Keratins
Oximes
Phosphates, biological studies
Sulfates, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(hair dyes contg. derivs. of quaternized heteroarom. aldehyde and/or a quaternized heteroarom. ketone)
IT Aldehydes, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(heteroaryl; hair dyes contg. derivs. of quaternized heteroarom. aldehyde and/or a quaternized heteroarom. ketone)
IT Proteins
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(soybean; hair dyes contg. derivs. of quaternized heteroarom. aldehyde and/or a quaternized heteroarom. ketone)
IT 6247-27-4, Mordant Brown 4
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(Mordant Brown 4; hair dyes contg. derivs. of quaternized heteroarom. aldehyde and/or a quaternized heteroarom. ketone)
IT 346684-81-9
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(Palatine Chrome Green; hair dyes contg. derivs. of quaternized heteroarom. aldehyde and/or a quaternized heteroarom. ketone)
IT 50-21-5, Lactic acid, biological studies 56-87-1, L-Lysine, biological studies 59-48-3, Oxindol 59-92-7, DOPA, biological studies 60-18-4, L-Tyrosine, biological studies 63-91-2, L-Phenylalanine, biological studies 64-18-6D, Formic acid, derivs. 64-19-7, Acetic acid, biological studies 67-52-7, Barbituric acid 70-26-8, L-Ornithine 71-00-1, L-Histidine, biological studies 73-22-3, L-Tryptophane, biological studies 74-79-3, L-Arginine, biological studies 77-32-7 77-92-9, biological studies 79-09-4, Propanoic acid, biological studies 79-14-1, Glycolic acid, biological studies 83-30-7, 2,4,6-Trihydroxybenzoic acid 83-56-7, 1,5-Dihydroxynaphthalene 87-02-5, 7-Amino-4-hydroxynaphthalene-2-sulfonic acid 87-69-4, biological studies 88-74-4, 2-Nitroaniline 89-86-1, 2,4-Dihydroxybenzoic acid 90-05-1, 2-Methoxyphenol 90-15-3, 1-Naphthol 90-20-0, 4-Amino-5-hydroxynaphthalene-2,7-disulfonic acid 91-29-2, 4'-Amino-4-nitrodiphenylamine-2-sulfonic acid 92-44-4, 2,3-Dihydroxynaphthalene 92-65-9, N-(2-Hydroxyethyl)-N-ethyl-p-phenylenediamine 95-54-5, o-Phenylenediamine, biological studies 95-55-6, 2-Aminophenol 95-70-5, 2,5-Diaminotoluene 95-88-5, 4-Chlororesorcin 96-93-5, 3-Amino-4-hydroxy-5-nitrobenzene sulfonic acid 98-37-3, 3-Amino-4-hydroxybenzene sulfonic acid 98-79-3, Pyrrolidone-5-carboxylic acid 98-86-2, Acetophenon, biological studies 99-05-8, 3-Aminobenzoic acid 99-07-0, 3-Dimethylaminophenol 99-31-0, 5-Aminoisophthalic acid

99-50-3, 3,4-Dihydroxybenzoic acid 99-56-9, 1,2-Diamino-4-nitrobenzene 100-01-6, 4-Nitroaniline, biological studies 101-77-9, 4,4'-Diaminodiphenylmethane 101-80-4, 4,4'-Diaminodiphenyl ether 103-82-2, 2-Phenylacetic acid, biological studies 106-50-3, p-Phenylenediamine, biological studies 107-92-6D, Butyric acid, derivs. 108-45-2, m-Phenylenediamine, biological studies 108-72-5, 1,3,5-Triaminobenzene 109-00-2, 3-Hydroxypyridine 110-86-1, Pyridine, biological studies 110-89-4, Piperidine, biological studies 118-12-7, 1,3,3-Trimethyl-2-methyleneindoline **118-70-7**, 4,5,6-Triaminopyrimidine 118-92-3, 2-Aminobenzoic acid 119-34-6, 4-Amino-2-nitrophenol 119-70-0, 4,4'-Diaminodiphenylamine-2-sulfonic acid 121-57-3, 4-Aminobenzene sulfonic acid 123-30-8, 4-Aminophenol 141-84-4, Rhodanine 141-86-6, 2,6-Diamino-pyridine 142-08-5, 2-Hydroxypyridine 142-62-1, Hexanoic acid, biological studies 150-13-0, 4-Aminobenzoic acid 150-19-6, 3-Methoxyphenol 150-75-4, 4-Methylaminophenol 150-76-5, 4-Methoxyphenol **156-81-0**, 2,4-Diaminopyrimidine 288-32-4, Imidazole, biological studies 288-88-0, 1H-1,2,4-Triazole 452-58-4, 2,3-Diamino-pyridine 462-08-8, 3-Amino-pyridine 488-87-9, 2,5-Dimethylresorcin 496-73-1, 4-Methylresorcin 498-94-2, Piperidine-4-carboxylic acid 504-15-4 504-17-6, Thiobarbituric acid 504-24-5, 4-Amino-pyridine 504-29-0, 2-Amino-pyridine 517-22-6, 2,4-Dimethyl-3-ethylpyrrole 526-95-4, D-Gluconic acid 533-31-3, 3,4-Methylenedioxyphenol 535-75-1, Piperidine-2-carboxylic acid 553-86-6, Cumaranone 570-24-1, 6-Nitro-o-toluidine 578-66-5, 8-Aminoquinoline 580-17-6, 3-Aminoquinoline 580-22-3, 2-Aminoquinoline 582-17-2, 2,7-Dihydroxynaphthalene 591-27-5, 3-Aminophenol 606-55-3 606-57-5, 2-Amino-1-nitronaphthalene 608-08-2, 3-Indoxylacetate 608-25-3, 2-Methylresorcin 609-20-1, 1,4-Benzenediamine, 2,6-dichloro- 611-98-3, 4,4'-Diaminobenzophenone 615-66-7, 2-Chloro-p-phenylenediamine 615-71-4, 1,2,4-Triaminobenzene 616-47-7, 1-Methylimidazole 623-09-6, 4-Methylaminoaniline 626-64-2, 4-Hydroxypyridine 636-25-9, 2,5-Diaminophenol 934-22-5, 5-Aminobenzimidazole **1004-74-6**, 2,4,5,6-Tetraaminopyrimidine **1004-75-7**, 4-Hydroxy-2,5,6-triaminopyrimidine 1123-55-3, 7-Aminobenzothiazole 1123-93-9, 5-Aminobenzothiazole 1125-60-6, 5-Aminoisoquinoline 1820-80-0, 3-Aminopyrazole 1953-54-4, 5-Hydroxyindole 2380-84-9, 7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1, 4-Hydroxyindole 2654-52-6, 2,3-Dimethylbenzothiazolium-p-toluene sulfonate 2785-06-0, 2,3-Dimethylbenzothiazolium iodide 2835-95-2, 2-Methyl-5-aminophenol 2835-99-6, 3-Methyl-4-aminophenol 2871-01-4, HC Red 3 3131-52-0, 5,6-Dihydroxyindole 3158-63-2, 1,3-Dimethylthiobarbituric acid 3167-49-5, 6-Aminonicotinic acid 3769-62-8, Gallion 3855-78-5, 2,3,4-Trimethylpyrrole 4318-76-7, 2,5-Diamino-pyridine 4331-29-7, 7-Aminobenzimidazole 4506-66-5, 1,2,4,5-Tetraaminobenzene-tetrahydrochloride 4928-43-2, 2-Dimethylamino-5-amino-pyridine 5007-67-0, 3,3',4,4'-Tetraaminobenzophenone 5131-58-8 5192-03-0, 5-Aminoindole 5192-04-1, 7-Aminoindole 5192-23-4, 4-Aminoindole 5217-47-0, 1,3-Diethylthiobarbituric acid 5307-14-2, 1,4-Diamino-2-nitrobenzene 5318-27-4, 6-Aminoindole 5345-47-1, 2-Aminonicotinic acid 5418-63-3, 1,2,3,3-Tetramethyl-3H-indoliumiodide 5434-20-8, 3-Aminophthalic acid 5718-83-2, Rhodanine-3-acetic acid 5850-35-1, Acid blue 29 5930-28-9, 2,6-Dichloro-4-aminophenol 5959-52-4, 3-Amino-2-naphthoic acid 6126-22-3 6201-65-6, 1,3-Benzenediol, 2-chloro- 6259-50-3, 6-Dimethylamino-4-hydroxy-2-naphthalene sulfonic acid 6358-09-4, 2-Amino-6-chloro-4-nitrophenol 6399-72-0, 6-Amino-7-hydroxynaphthalene-2-sulfonic acid 6628-04-2, 4-Aminoquinaldine 6634-82-8, 4-Amino-4'-nitrostilbene-2,2'-disulfonic

acid, disodium salt 6967-12-0, 6-Aminoindazole 7336-20-1 7411-49-6 7429-90-5D, Aluminum, salts 7439-89-6D, Iron, salts 7439-93-2D, Lithium, salts 7439-95-4D, Magnesium, salts 7439-96-5D, Manganese, salts 7440-09-7D, Potassium, salts 7440-23-5D, Sodium, salts 7440-24-6D, Strontium, salts 7440-39-3D, Barium, salts 7440-48-4D, Cobalt, salts 7440-50-8D, Copper, salts 7440-66-6, Zinc, biological studies 7440-70-2D, Calcium, salts 7575-35-1, N,N-Bis(2-hydroxyethyl)-p-phenylenediamine **7749-47-5**, 2-Amino-4-methoxy-6-methylpyrimidine 7768-28-7, 2-(2-Hydroxyethyl)phenol 10173-66-7 **13754-19-3**, 4,5-Diaminopyrimidine 14268-66-7, 3,4-Methylenedioxyaniline 15477-76-6D, **Phosphonate**, salts 16082-33-0, 3,5-Diaminopyrazole 16859-86-2, 1,4-Dimethylquinoliniumiodide 16867-03-1, 2-Amino-3-hydroxy-pyridine 19335-11-6, 5-Aminoindazole 20103-09-7, 1,4-Benzenediamine, 2,5-dichloro- **22715-34-0**, 2-Hydroxy-4,5,6-triaminopyrimidine 23244-87-3, 2,4,5-Triaminopyridine 23894-07-7, 3,6-Dihydroxy-2,7-naphthalene disulfonic acid 24119-24-2, N,N-Bis-[2-(4-aminophenoxy)ethyl]methylamine-trihydrochloride 24905-87-1, HC Red 7 28020-38-4, 2,3-Diamino-6-methoxy-pyridine 29539-03-5, 5,6-Dihydroxyindoline 31835-64-0, 3-Amino-3'-nitrobiphenyl 34572-45-7, 2-Nitro-1-amino-4-[bis(2-hydroxyethyl)amino]benzene 42952-29-4, 1-Ethyl-2-methylnaphtho[1,2-d]thiazolium-p-toluenesulfonate 50610-28-1, 2-Chloro-5-nitro-N-hydroxyethyl-1,4-phenylenediamine 51387-92-9 55302-96-0, 2-Methyl-5-(2-hydroxyethylamino)phenol 56932-44-6, HC Yellow 5 58480-17-4, 1,2-Dimethylnaphtho[1,2-d]thiazolium-p-toluene sulfonate 61224-35-9, 1,2,3,3-Tetramethyl-3H-indolium-p-toluenesulfonate 61693-42-3, 3-Amino-2,4-dichlorophenol **62496-02-0**, 2-Methylamino-4,5,6-triaminopyrimidine 64993-07-3, 5-Amino-6-nitrobenzo-1,3-dioxole 66635-40-3, 4,4'-Diaminostilbene-dihydrochloride 69825-83-8, 6-Nitro-2,5-diaminopyridine 70643-19-5, 3-Amino-4-(2'-hydroxyethyloxy)aniline 74918-21-1, 1,3-Bis(2,4-diaminophenoxy)propane-tetrahydrochloride 79352-72-0, 4-Amino-2-aminomethylphenol 80437-28-1 82576-75-8, HC Violet 1 84540-47-6, 2,6-Dihydroxy-3,4-dimethylpyridine 84540-50-1, 6-Methyl-3-amino-2-chlorophenol 85679-78-3, 3,5-Diamino-2,6-dimethoxy-pyridine 85926-99-4, 4-Hydroxyindoline 90817-34-8, 3-Amino-2-methylamino-6-methoxypyridine 93841-24-8, 2-(2,5-Diaminophenyl)ethanol 93923-57-0 95576-89-9, HC Red 10 99803-02-8 104333-09-7, 2-Hydroxymethyl-4-aminophenol 110102-86-8, 2-Methyl-5-amino-4-chlorophenol 110952-48-2 114402-54-9, 1,3-Bis(4-aminophenylamino)propane 115423-86-4, 1,3-Diamino-2,4-dimethoxybenzene 117907-43-4 128709-79-5 128729-30-6, 1,3-Bis[N-(4-aminophenyl)-2-hydroxyethylamino]-2-propanol 130582-56-8, 1,3-Bis(4-aminophenylamino)-2-propanol 136696-43-0 137290-86-9, 5-(2-Hydroxyethylamino)-4-methoxy-2-methylphenol 144644-13-3, 1,8-Bis(2,5-diaminophenoxy)-3,6-dioxaoctane-tetrahydrochloride 159661-42-4, 2,5-Dihydroxy-4-morpholinoaniline 202525-71-1, 2,5-Dihydroxy-4-morpholinoaniline-dihydrobromide 202525-73-3, 2,4,5-Triaminophenol-trihydrochloride 202525-74-4, Pentaaminobenzenepentahydrochloride 202525-75-5, Hexaaminobenzene-hexahydrochloride 202525-76-6, 2,4,6-Triaminoresorcin trihydrochloride 202525-78-8, 4,6-Diaminopyrogallol-dihydrochloride 215377-52-9, 3,4-Methylenediaminoaniline 220118-56-9, 1,2,3,3-Tetramethyl-3H-indolium-methanesulfonate 223383-77-5, 4-Amino-3-hydroxynaphthalene-sulfonic acid 260981-02-0, N-(2-Methoxyethyl)-p-phenylenediamine 260981-03-1, 2,3-Dichloro-p-phenylenediamine 262853-93-0, Piperidine-3-carboxylic acid
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(hair dyes contg. derivs. of quaternized heteroarom. aldehyde and/or a quaternized heteroarom. ketone)

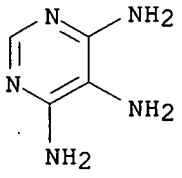
IT 346593-13-3 374675-92-0 374675-93-1 374675-94-2 374675-95-3
374675-96-4 374675-97-5 374675-98-6 374675-99-7 374676-00-3
374676-01-4 374676-02-5 374676-03-6 374676-04-7
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(hair dyes contg. derivs. of quaternized heteroarom. aldehyde and/or a quaternized heteroarom. ketone)

IT 374675-90-8P 374675-91-9P
RL: BUU (Biological use, unclassified); **SPN (Synthetic preparation)**; BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(hair dyes contg. derivs. of quaternized heteroarom. aldehyde and/or a quaternized heteroarom. ketone)

IT 66-27-3, Methanesulfonic acid methylester 3012-80-4, 1-Methyl-2-formylbenzimidazole
RL: RCT (Reactant); RACT (Reactant or reagent)
(hair dyes contg. derivs. of quaternized heteroarom. aldehyde and/or a quaternized heteroarom. ketone)

IT **118-70-7**, 4,5,6-Triaminopyrimidine
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(hair dyes contg. derivs. of quaternized heteroarom. aldehyde and/or a quaternized heteroarom. ketone)

RN 118-70-7 HCAPLUS
CN 4,5,6-Pyrimidinetriamine (9CI) (CA INDEX NAME)



L70 ANSWER 7 OF 53 HCAPLUS COPYRIGHT 2003 ACS
AN 2001:730522 HCAPLUS
DN 135:293677
TI Stable alkaline hair bleaching compositions and method for use thereof
IN Dias, Louis Carlos
PA The Procter + Gamble Company, USA
SO PCT Int. Appl., 73 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61K007-135
CC 62-3 (Essential Oils and **Cosmetics**)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001072272	A2	20011004	WO 2001-US9235	20010323
	WO 2001072272	A3	20020523		

W: AE, AG, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP,

KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US 6540791 B1 20030401 US 2000-537451 20000327
PRAI US 2000-537451 A 20000327

AB An alk. hair bleaching compn. comprising (a) from about 0.01 to about 12, by wt., of at least one oxidizing agent; (b) from about 0.2 to about 20, by wt., of a buffering system, present in an amt. sufficient to generate a pH of the compn. in the range from about 5 to about 11, wherein said buffering system comprises at least one pH modifying ingredient selected from the group consisting of (i) borates buffers, (ii) alkalizing agents, and mixts. thereof; (c) from about 150 ppm to about 5,000 ppm of at least one stabilizer; and (d) from about 0.01 to about 50, by wt., of at least one hair care ingredient selected from the group consisting of (i) surfactants, (ii) catalysts, (iii) thickeners, (iv) conditioners, and mixts. thereof. A hair bleaching and coloring compn. contained hydrogen peroxide 3, disodium tetraborate decahydrate 0.5, cyclohexane-1,2-diaminotetrakisphosphonic acid 0.1, PEG-2 hydrogenated tallow amine 0.3, cetearyl alc. 5, water and minors q.s. 100.

ST stability alk hair bleach color oxidant

IT Polysiloxanes, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(3-[(2-aminoethyl)amino]-2-methylpropyl Me, di-Me, Q 2-8220; stable alk. hair bleaching compns. and method for use thereof)

IT Dyes
(basic; stable alk. hair bleaching compns. and method for use thereof)

IT Hair preparations
(bleaches; stable alk. hair bleaching compns. and method for use thereof)

IT Hair preparations
(conditioners; stable alk. hair bleaching compns. and method for use thereof)

IT Dyes
(direct, cationic; stable alk. hair bleaching compns. and method for use thereof)

IT Hair preparations
(dyes, oxidative; stable alk. hair bleaching compns. and method for use thereof)

IT Hair preparations
(dyes; stable alk. hair bleaching compns. and method for use thereof)

IT Logwood (Haematoxylon campechianum)
(ext.; stable alk. hair bleaching compns. and method for use thereof)

IT Amines, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(heterocyclic; stable alk. hair bleaching compns. and method for use thereof)

IT Walnut
(hull; stable alk. hair bleaching compns. and method for use thereof)

IT Dyes
(nitro; stable alk. hair bleaching compns. and method for use thereof)

IT Gall (plant tumor)
(nutgall; stable alk. hair bleaching compns. and method for use

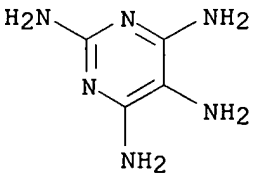
thereof)
IT Phosphates, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(org.; stable alk. hair bleaching compns. and method for use thereof)
IT Carboxylic acids, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(polycarboxylic acid esters; stable alk. hair bleaching compns. and method for use thereof)
IT Anthraquinone dyes
Azo dyes
Buffers
Catalysts
Chamaemelum nobile
Chamomile
Indigofera
Lawsonia inermis
Lawsonia inermis alba
Oxidizing agents
Stabilizing agents
Surfactants
Thickening agents
(stable alk. hair bleaching compns. and method for use thereof)
IT Alkali metal hydroxides
Alkali metals, biological studies
Borates
Enzymes, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(stable alk. hair bleaching compns. and method for use thereof)
IT Dyes
(vat; stable alk. hair bleaching compns. and method for use thereof)
IT 83-56-7, 1,5-Dihydroxynaphthalene 83-72-7, 2-Hydroxy-1,4-naphthoquinone 87-66-1, Pyrogallol 89-25-8 90-15-3, 1-Naphthol 95-54-5, o-Phenylenediamine, biological studies 95-55-6, o-Aminophenol 95-70-5, p-Toluenediamine 95-88-5, 4-Chlororesorcinol 101-54-2, N-Phenyl-p-phenylenediamine 106-50-3, p-Phenylenediamine, biological studies 107-43-7D, Betaine, cocamidopropyl derivs. 108-26-9 108-45-2, 1,3-Benzenediamine, biological studies 108-46-3, Resorcinol, biological studies 119-34-6, 4-Amino-2-nitrophenol 123-30-8, p-Aminophenol 141-43-5, Monoethanolamine, biological studies 506-87-6, Ammonium carbonate 520-36-5, 4',5,7-Trihydroxyflavone 533-31-3, 3,4-Methylenedioxyphenol 575-38-2, 1,7-Dihydroxynaphthalene 591-27-5 608-25-3, 2-Methylresorcinol 609-21-2, 4-Amino-2,6-dibromophenol 612-76-0, m-Diphenol 615-05-4, 2,4-Diaminoanisole **1004-74-6**, 2,4,5,6-Tetraaminopyrimidine 1066-33-7, Ammonium hydrogen carbonate 1066-51-9, Aminomethylene phosphonic acid 1066-51-9D, Aminomethylene phosphonic acid, water-sol. salts 1303-96-4, Disodium tetraborate decahydrate 1310-73-2, Sodium hydroxide, biological studies 1336-21-6, Ammonium hydroxide 2044-64-6, N,N-Dimethyl acetoacetamide 2235-46-3, N,N-Diethyl acetoacetamide 2628-69-5 2749-59-9 **2809-21-4D**, alkali metal derivs. 2835-95-2, 4-Amino-2-hydroxytoluene 2835-99-6, 3-Methyl-4-aminophenol 3131-52-0, 5,6-Dihydroxyindole 5307-00-6, 2-Methyl-5-methoxy-p-phenylenediamine 5307-02-8, 2,5-Diaminoanisole 5307-14-2, Nitro-p-phenylenediamine 5930-28-9, 4-Amino-2,6-dichlorophenol 6419-19-8, Nitrilotrimethylene phosphonic acid 7218-02-2, 2,6-Dimethyl-p-phenylenediamine 7439-96-5D, Manganese, salts,

biological studies 7440-02-0D, Nickel, salts, biological studies 7440-22-4D, Silver, salts, biological studies 7440-48-4D, Cobalt, salts, biological studies 7440-50-8D, Copper, salts, biological studies 7440-69-9D, Bismuth, salts, biological studies 7575-35-1, N,N-Bis(2-hydroxyethyl)-p-phenylenediamine 9000-92-4, Amylase 9001-62-1, Lipase 9001-92-7, Protease 9003-99-0, Peroxidase 9012-54-8, Cellulase 9013-79-0, Esterase 9031-11-2, Lactase 9032-75-1, Pectinase 9055-15-6, Oxidoreductase 16867-03-1, 2-Amino-3-hydroxypyridine 25620-59-1, Aminoanthraquinone 27522-09-4, Ammonium borate 29757-24-2 43093-74-9, Nitroaminophenol 44170-50-5D, Ethylene triamine, hydroxyethyl derivs. 51377-41-4, Cutinase 55302-96-0, 5-(2-Hydroxyethylamino)-2-methylphenol 66566-48-1 68651-46-7, Indigo (dye) 73793-80-3, 2,5-Diaminobenzyl alcohol 80498-15-3, Laccase 81892-72-0, 1,3-Bis(2,4-diaminophenoxy)propane 84540-47-6, 2,6-Dihydroxy-3,4-dimethylpyridine 84540-50-1 93841-24-8, 2-(2,5-Diaminophenyl)ethanol 126596-25-6 233265-18-4, aculyn 46 364050-36-2
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(stable alk. hair bleaching compns. and method for use thereof)

IT **1004-74-6**, 2,4,5,6-Tetraaminopyrimidine
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(stable alk. hair bleaching compns. and method for use thereof)

RN 1004-74-6 HCAPLUS

CN Pyrimidinetetramine (9CI) (CA INDEX NAME)



L70 ANSWER 8 OF 53 HCAPLUS COPYRIGHT 2003 ACS

AN 2001:730521 HCAPLUS

DN 135:293676

TI Stable alkaline hair bleaching and coloring compositions and method for use thereof

IN Dias, Louis Carlos

PA The Procter + Gamble Company, USA

SO PCT Int. Appl., 71 pp.
CODEN: PIXXD2

DT Patent

LA English

IC ICM A61K007-135
ICS A61K007-13

CC 62-3 (Essential Oils and **Cosmetics**)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2001072271	A2	20011004	WO 2001-US9213	20010323
WO 2001072271	A3	20020321		

W: AE, AG, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EE, EE, ES, FI,

FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRAI US 2000-537452 A 20000327

AB An alk. hair bleaching and coloring compn. comprising: (a) from about 0.01 to about 12, by wt., of at least one oxidizing agent; (b) from about 0.2 to about 20, by wt., of a buffering system, present in an amt. sufficient to generate a pH of the compn. in the range from about 5 to about 11, wherein said buffering system comprises at least one pH modifying ingredient selected from the group consisting of (i) borates buffers, (ii) alkalizing agents, and mixts. thereof; (c) from about 150 ppm to about 5,000 ppm of at least one stabilizer; and (d) from about 0.001 to about 5 , by wt., of at least one hair coloring agent. A hair bleaching and coloring compn. contained hydrogen peroxide 3, disodium tetraborate decahydrate 0.5, cyclohexane-1,2-diaminotetrakisphosphonic acid 0.1, alkyl dimethylamine oxide 0.3, cetearyl alc. 5, HC Red No. 3 0.3, HC Red No. 2 0.1, water and minors q.s. 100.

ST stability alk hair bleach color oxidant

IT Polysiloxanes, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(3-[(2-aminoethyl)amino]-2-methylpropyl Me, di-Me, Q 2-8220; stable alk. hair bleaching and coloring compns. and method for use thereof)

IT Dyes
(basic; stable alk. hair bleaching and coloring compns. and method for use thereof)

IT Hair preparations
(bleaches; stable alk. hair bleaching and coloring compns. and method for use thereof)

IT Hair preparations
(conditioners; stable alk. hair bleaching and coloring compns. and method for use thereof)

IT Dyes
(direct, cationic; stable alk. hair bleaching and coloring compns. and method for use thereof)

IT Hair preparations
(dyes, oxidative; stable alk. hair bleaching and coloring compns. and method for use thereof)

IT Hair preparations
(dyes; stable alk. hair bleaching and coloring compns. and method for use thereof)

IT Logwood (Haematoxylon campechianum)
(ext.; stable alk. hair bleaching and coloring compns. and method for use thereof)

IT Amines, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(heterocyclic; stable alk. hair bleaching and coloring compns. and method for use thereof)

IT Walnut
(hull; stable alk. hair bleaching and coloring compns. and method for use thereof)

IT Dyes

(nitro; stable alk. hair bleaching and coloring compns. and method for use thereof)

IT Gall (plant tumor)
(nutgall; stable alk. hair bleaching and coloring compns. and method for use thereof)

IT Phosphates, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(org.; stable alk. hair bleaching and coloring compns. and method for use thereof)

IT Carboxylic acids, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(polycarboxylic acid esters; stable alk. hair bleaching and coloring compns. and method for use thereof)

IT Anthraquinone dyes
Azo dyes
Buffers
Catalysts
Chamaemelum nobile
Chamomile
Indigofera
Lawsonia inermis
Lawsonia inermis alba
Oxidizing agents
Stabilizing agents
Surfactants
Thickening agents
(stable alk. hair bleaching and coloring compns. and method for use thereof)

IT Alkali metal hydroxides
Alkali metals, biological studies
Borates
Enzymes, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(stable alk. hair bleaching and coloring compns. and method for use thereof)

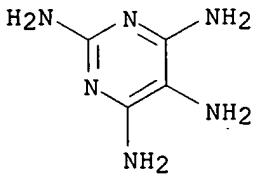
IT Dyes
(vat; stable alk. hair bleaching and coloring compns. and method for use thereof)

IT 83-56-7, 1,5-Dihydroxynaphthalene 83-72-7, 2-Hydroxyl,4-naphthoquinone 87-66-1, Pyrogallol 89-25-8 90-15-3, 1-Naphthol 95-54-5, o-Phenylenediamine, biological studies 95-55-6, o-Aminophenol 95-70-5, p-Toluenediamine 95-88-5, 4-Chlororesorcinol 101-54-2, N-Phenyl-p-phenylenediamine 106-50-3, p-Phenylenediamine, biological studies 108-26-9 108-45-2, 1,3-Benzenediamine, biological studies 108-46-3, Resorcinol, biological studies 119-34-6, 4-Amino-2-nitrophenol 123-30-8, p-Aminophenol 141-43-5, monoethanolamine, biological studies 506-87-6, ammonium carbonate 520-36-5, 4',5,7-Trihydroxyflavone 533-31-3, 3,4-Methylenedioxyphenol 575-38-2, 1,7-Dihydroxynaphthalene 591-27-5 608-25-3, 2-Methylresorcinol 609-21-2, 4-Amino-2,6-dibromophenol 612-76-0, m-Diphenol 615-05-4, 2,4-Diaminoanisole **1004-74-6**, 2,4,5,6-Tetraaminopyrimidine 1066-33-7, ammonium hydrogen carbonate 1066-51-9, Aminomethylene phosphonic acid 1066-51-9D, Aminomethylene phosphonic acid, water-sol. salts 1303-96-4, Disodium tetraborate decahydrate 1310-73-2, sodium hydroxide, biological studies 1336-21-6, ammonium hydroxide 2044-64-6, N,N-

Dimethylacetoacetamide 2235-46-3, N,N-Diethylacetoacetamide 2628-69-5 2749-59-9 **2809-21-4D**, alkali metal derivs. 2835-95-2, 4-Amino-2-hydroxytoluene 2835-99-6, 3-Methyl-4-aminophenol 5307-00-6, 2-Methyl-5-methoxy-p-phenylenediamine 5307-02-8, 2,5-Diaminoanisole 5307-14-2, Nitro-p-phenylenediamine 5930-28-9, 4-Amino-2,6-dichlorophenol 6419-19-8, Nitrilotrimethylenephosphonic acid 7218-02-2, 2,6-Dimethyl-p-phenylenediamine 7439-96-5D, Manganese, salts, biological studies 7440-02-0D, Nickel, salts, biological studies 7440-22-4D, silver, salts, biological studies 7440-48-4D, Cobalt, salts, biological studies 7440-50-8D, Copper, salts, biological studies 7440-69-9D, Bismuth, salts, biological studies 7575-35-1 7722-84-1, Hydrogen peroxide, biological studies 9000-92-4, amylase 9001-62-1, lipase 9001-92-7, protease 9003-99-0, peroxidase 9012-54-8, cellulase 9013-79-0, Esterase 9031-11-2, lactase 9032-75-1, pectinase 9055-15-6, Oxidoreductase 16867-03-1, 2-Amino-3-hydroxypyridine 25620-59-1, Aminoanthraquinone 27522-09-4, ammonium borate 29757-24-2 43093-74-9, Nitroaminophenol 44170-50-5D, Ethylene triamine, hydroxyethyl derivs. 51377-41-4, cutinase 55302-96-0 66566-48-1 68651-46-7, Indigo (dye) 73793-80-3, 2,5-Diaminobenzyl alcohol 80498-15-3, laccase 81892-72-0, 1,3-Bis(2,4-diaminophenoxy)propane 84540-47-6, 2,6-Dihydroxy-3,4-dimethylpyridine 84540-50-1 93841-24-8, 2-(2,5-Diaminophenyl)ethanol 126596-25-6 364050-36-2
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(stable alk. hair bleaching and coloring compns. and method for use thereof)

IT **1004-74-6**, 2,4,5,6-Tetraaminopyrimidine
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(stable alk. hair bleaching and coloring compns. and method for use thereof)

RN 1004-74-6 HCAPLUS
CN Pyrimidinetetramine (9CI) (CA INDEX NAME)



L70 ANSWER 9 OF 53 HCAPLUS COPYRIGHT 2003 ACS
AN 2001:721024 HCAPLUS
DN 136:38774
TI The stability of monochlorotriazinyl reactive dyes on cellulose films in aqueous alkaline solutions containing peroxide bleaching agents
AU Sugane, A.; Watanabe, A.; Okada, Y.; Morita, Z.
CS School of Domestic Science, Otsuma Women's University, Sanban-cho, Chiyoda-ku, Tokyo, 102-8357, Japan
SO Dyes and Pigments (2001), 50(3), 223-241
CODEN: DYPIDX; ISSN: 0143-7208
PB Elsevier Science Ltd.
DT Journal
LA English

CC 40-6 (Textiles and Fibers)
Section cross-reference(s): **41**, 43

AB The stability of seven reactive (one difluoromonochloropyrimidinyl and six monochlorotriazinyl) dyes on cellophane immersed in sodium **peroxoborate** (PB) soln. (UK-TO soln.) contg. tetraacetylethylenediamine (TAED) was examd. at 60 .degree.C. The extent of dye loss that occurred from the dyed cellulosic films which were immersed in the UK-TO soln. without detergent correlated closely to the ratings obtained using the BS 1006 UK-TO wash test. The dye loss was attributed to three factors, namely, alk. hydrolysis of dye-fiber bonds, oxidative fading of the dye **chromophore** by peroxides, and cellulose degrdn. accelerated by PB and TAED. The alk. hydrolysis of the dye-fiber bond and the extent of cellulose degrdn. in the UK-TO soln. were the main contributions to the dye loss; dye oxidn. was a minor factor in the dye loss mechanism. The phys. bonding of the dye mols. reinforced the covalent dye-fiber bond stability towards the UK-TO soln.

ST reactive dye cellophane alk peroxide bleach resistance; oxidative fading hydrolysis chlorotriazine reactive dye cellulose

IT Reactive dyes
(chlorotriazine; stability of reactive dyes on cellophane in aq. alk. solns. contg. peroxide bleaching agents)

IT Bleaching
Hydrolysis
Oxidation catalysts
(in stability of reactive dyes on cellophane in aq. alk. solns. contg. peroxide bleaching agents)

IT Bleaching agents
(peroxide; stability of reactive dyes on cellophane in aq. alk. solns. contg.)

IT Fading
(photochem., oxidative; in stability of reactive dyes on cellophane in aq. alk. solns. contg. peroxide bleaching agents)

IT Cellophane
(stability of reactive dyes on cellophane in aq. alk. solns. contg. peroxide bleaching agents)

IT 10543-57-4, TAED
RL: CAT (Catalyst use); USES (Uses)
(bleach activator; in stability of reactive dyes on cellophane in aq. alk. solns. contg. peroxide bleaching agents)

IT 79-21-0, Peracetic acid 7722-84-1, Hydrogen peroxide, uses 10486-00-7, Sodium **perborate** tetrahydrate
RL: TEM (Technical or engineered material use); USES (Uses)
(bleaching agent; stability of reactive dyes on cellophane in aq. alk. solns. contg. peroxide bleaching agents)

IT **12236-82-7**, C.I. Reactive blue 2 **16823-51-1**, C.I. Reactive blue 5
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(blue dye; stability of monochlorotriazinyl reactive dyes on cellophane in aq. alk. solns. contg. peroxide bleaching agents)

IT 85631-95-4
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(blue dye; stability of reactive dyes on cellophane in aq. alk. solns. contg. peroxide bleaching agents)

IT **70224-59-8**
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(brown dye; stability of monochlorotriazinyl reactive dyes on cellophane in aq. alk. solns. contg. peroxide bleaching agents)

IT 633-96-5, C.I. Acid Orange 7
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(orange dye; stability of dyes on cellophane in aq. alk. solns. contg. peroxide bleaching agents)

IT **23211-47-4**, C.I. Reactive Red 3 **61951-82-4**, C.I. Reactive Red 120
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(red dye; stability of monochlorotriazinyl reactive dyes on cellophane in aq. alk. solns. contg. peroxide bleaching agents)

IT **68959-17-1**
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(red dye; stability of reactive dyes on cellophane in aq. alk. solns. contg. peroxide bleaching agents)

IT **6539-67-9**, C.I. Reactive Yellow 3
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(yellow dye; stability of monochlorotriazinyl reactive dyes on cellophane in aq. alk. solns. contg. peroxide bleaching agents)

RE.CNT 66 THERE ARE 66 CITED REFERENCES AVAILABLE FOR THIS RECORD

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IT **12236-82-7**, C.I. Reactive blue 2
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(blue dye; stability of monochlorotriazinyl reactive dyes on cellophane in aq. alk. solns. contg. peroxide bleaching agents)

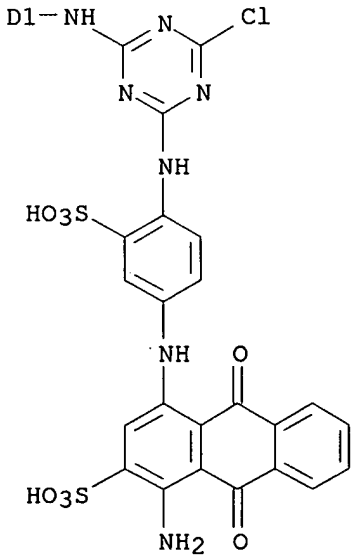
RN 12236-82-7 HCAPLUS

CN 2-Anthracenesulfonic acid, 1-amino-4-[[4-[[4-chloro-6-[[3(or 4)-sulfophenyl]amino]-1,3,5-triazin-2-yl]amino]-3-sulfophenyl]amino]-9,10-dihydro-9,10-dioxo- (9CI) (CA INDEX NAME)

PAGE 1-A

D1—SO_3H

PAGE 2-A



L70 ANSWER 10 OF 53 HCAPLUS COPYRIGHT 2003 ACS

AN 2001:693046 HCAPLUS
DN 135:277730
TI Preparation containing quinoxaline derivatives
IN Pfluecker, Frank; Driller, Hansjuergen; Kirschbaum, Michael; Scholz, Volker; Neunhoeffer, Hans
PA Merck Patent G.m.b.H., Germany
SO PCT Int. Appl., 117 pp.
CODEN: PIXXD2
DT Patent
LA German
IC ICM A61K007-42
ICS A61K007-44
CC 62-4 (Essential Oils and **Cosmetics**)
Section cross-reference(s): 28, 63
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2001068047	A2	20010920	WO 2001-EP2517	20010306
WO 2001068047	A3	20020307		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
DE 10013318	A1	20010920	DE 2000-10013318	20000317
EP 1267819	A2	20030102	EP 2001-909822	20010306
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				

PRAI DE 2000-10013318 A 20000317
WO 2001-EP2517 W 20010306
OS MARPAT 135:277730
AB The invention relates to the use of quinoxaline derivs. as photostable UV filters in cosmetic and pharmaceutical prepns. for protecting the human epidermis or human hair against UV radiation, esp. in the 280-400 nm range.
ST quinoxaline deriv photostable UV filter cosmetic
IT Optical filters
(UV; prepns. contg. quinoxaline derivs. as photostable UV filters for cosmetic and pharmaceutical use)
IT Skin
(epidermis, protection of; prepns. contg. quinoxaline derivs. as photostable UV filters for cosmetic and pharmaceutical use)
IT Cosmetics
Drug delivery systems
(gels; prepns. contg. quinoxaline derivs. as photostable UV filters for cosmetic and pharmaceutical use)
IT Antioxidants
Cosmetics
Drugs
Photoprotectants
Sunscreens
Suntanning agents
(prepns. contg. quinoxaline derivs. as photostable UV filters for cosmetic and pharmaceutical use)

IT Hair
(protection of; prepns. contg. quinoxaline derivs. as photostable UV filters for cosmetic and pharmaceutical use)

IT Cosmetics
Drug delivery systems
(sprays; prepns. contg. quinoxaline derivs. as photostable UV filters for cosmetic and pharmaceutical use)

IT 362607-57-6
RL: BUU (Biological use, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(prepns. contg. quinoxaline derivs. as photostable UV filters for cosmetic and pharmaceutical use)

IT **361389-93-7P**
RL: BUU (Biological use, unclassified); PRP (Properties); RCT (Reactant); **SPN (Synthetic preparation)**; THU (Therapeutic use); BIOL (Biological study); **PREP (Preparation)**; RACT (Reactant or reagent); USES (Uses)
(prepns. contg. quinoxaline derivs. as photostable UV filters for cosmetic and pharmaceutical use)

IT **7065-92-1 34117-90-3**
RL: BUU (Biological use, unclassified); PRP (Properties); RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(prepns. contg. quinoxaline derivs. as photostable UV filters for cosmetic and pharmaceutical use)

IT **4595-94-2P 361389-92-6P 361389-94-8P**
361389-95-9P 361389-96-0P
RL: BUU (Biological use, unclassified); PRP (Properties); **SPN (Synthetic preparation)**; THU (Therapeutic use); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(prepns. contg. quinoxaline derivs. as photostable UV filters for cosmetic and pharmaceutical use)

IT 118-56-9 131-57-7 **1504-78-5 2213-63-0** 5466-77-3
6197-30-4 **6323-89-3 6640-47-7**, 2,3-Quinoxalinediamine
13481-33-9 17911-93-2 21245-02-3 **25871-18-5**
27503-81-7, 2-Phenylbenzimidazole-5-sulfonic acid **27739-37-3**,
2,2'-Biquinoxaline **35552-76-2 36818-07-2**
36856-91-4 49679-45-0 50652-76-1 56404-42-3
62294-86-4 63250-25-9 70356-09-1 **75163-15-4**
75163-16-5 75470-77-8 83451-39-2
84199-29-1 96702-03-3, Ectoin 97065-23-1 **99565-84-1**
100962-02-5 101101-68-2 101576-66-3
112080-12-3 117764-56-4 127376-18-5 127376-24-3
128499-91-2 143076-31-7 156967-94-1
199275-08-6 205114-37-0 213467-54-0 361389-97-1
361390-03-6 361390-04-7 361390-05-8
361390-06-9 361390-07-0 361390-08-1
361390-09-2 361390-10-5 361390-11-6
361390-12-7 361390-13-8 361390-14-9
361390-15-0 361390-16-1 361390-17-2
361390-18-3 361390-19-4 **361390-20-7**
361390-21-8 361390-22-9 361390-23-0 **361390-24-1**
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361390-28-5 361390-29-6 361390-30-9
361390-31-0 361390-32-1 361390-33-2
361390-34-3 361390-35-4 361390-36-5
361390-37-6 361390-38-7 361390-39-8

361390-40-1 361390-41-2 361390-42-3
361390-43-4 361390-44-5 361390-45-6
361390-46-7 362518-85-2 362518-86-3
362518-87-4
RL: BUU (Biological use, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(prepns. contg. quinoxaline derivs. as photostable UV filters for cosmetic and pharmaceutical use)

IT **102730-20-1P 361389-99-3P 361390-00-3P**
361390-01-4P 361390-02-5P 362526-04-3P
362526-05-4P 362526-06-5P
RL: BUU (Biological use, unclassified); **SPN (Synthetic preparation)**; THU (Therapeutic use); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(prepns. contg. quinoxaline derivs. as photostable UV filters for cosmetic and pharmaceutical use)

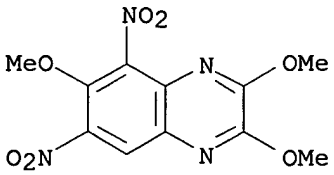
IT **91-19-0D**, Quinoxaline, derivs.
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(prepns. contg. quinoxaline derivs. as photostable UV filters for cosmetic and pharmaceutical use)

IT 56-91-7, 4-Aminomethylbenzoic acid 75-77-4, Trimethylchlorosilane, reactions 90-04-0, 2-Aminoanisole 93-97-0, Benzoic acid anhydride 98-88-4, Benzoylchloride **109-12-6**, 2-Aminopyrimidine 110-86-1, Pyridine, reactions 121-69-7, N,N-Dimethylaniline, reactions 150-13-0, 4-Aminobenzoic acid 363-81-5, 2,4,6-Trifluoroaniline 824-79-3, Sodium p-toluene sulfinate 1118-89-4 **1448-87-9**, 2-Chloroquinoxaline 1571-08-0, Methyl 4-formylbenzoate 2835-77-0, 2-Aminobenzophenone 2942-58-7, **Diethylcyanophosphonate** 4333-62-4, 1,3-Dimethylimidazolium iodide 5653-40-7, 2-Amino-4,5-dimethoxybenzoic acid 7677-24-9, Trimethylsilylcyanide 18144-43-9, Isopropyl 4-Aminobenzoate 24313-88-0, 3,4,5-Trimethoxyaniline 25265-76-3, Phenylenediamine **25594-62-1**, 2-Acetylquinoxaline 89343-06-6, Triisopropylsilylacetylene **100060-92-2**
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepns. contg. quinoxaline derivs. as photostable UV filters for cosmetic and pharmaceutical use)

IT 1825-64-5P **361389-98-2P**
RL: RCT (Reactant); **SPN (Synthetic preparation)**; **PREP (Preparation)**; RACT (Reactant or reagent)
(prepns. contg. quinoxaline derivs. as photostable UV filters for cosmetic and pharmaceutical use)

IT **361389-93-7P**
RL: BUU (Biological use, unclassified); **SPN (Synthetic preparation)**; **PREP (Preparation)**; **SPN (Synthetic preparation)**; **PREP (Preparation)**; **PREP (Preparation)**; **PREP (Preparation)**; RACT (Reactant or reagent); USES (Uses)
(prepns. contg. quinoxaline derivs. as photostable UV filters for cosmetic and pharmaceutical use)

RN 361389-93-7 HCAPLUS
CN Quinoxaline, 2,3,6-trimethoxy-5,7-dinitro- (9CI) (CA INDEX NAME)



L70 ANSWER 11 OF 53 HCAPLUS COPYRIGHT 2003 ACS
AN 2001:479141 HCAPLUS
DN 135:81809
TI Hair dyeing preparations containing methylquinoline derivs.
IN Moeller, Hinrich; Oberkobusch, Doris; Hoeffkes, Horst
PA Henkel K.-G.a.A., Germany
SO Ger. Offen., 12 pp.
CODEN: GWXXBX
DT Patent
LA German
IC ICM A61K007-13
ICS C07D215-10
CC 62-3 (Essential Oils and **Cosmetics**)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DE 19962875	A1	20010628	DE 1999-19962875	19991224
WO 2001047483	A1	20010705	WO 2000-EP12816	20001215
W: AU, BR, CA, CN, CZ, HU, JP, NO, PL, RU, SK, US, VN				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
EP 1239817	A1	20020918	EP 2000-990772	20001215
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				

PRAI DE 1999-19962875 A 19991224
WO 2000-EP12816 W 20001215
OS MARPAT 135:81809
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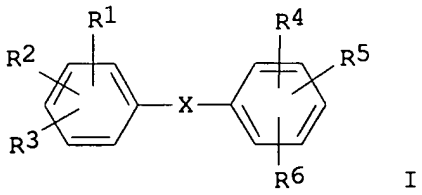


I

AB The invention concerns the usage of methylquinoline derivs. [(I), R groups are defined] in hair dyeing prepns. Thus 4-formyl-1-methylquinoline-p-toluene sulfonate was prepd. from quinoline-4-carboxaldehyde and toluene sulfonic acid Me ester and used in component A of a two-component hair dye cream. Component A contained (wt./wt.%): 4-formyl-1-methylquinoline-p-toluene 3.61; Natrosol HD250 (hydroxyethyl cellulose) 2.00; water 94.39. Component B contained (wt./wt.%): Texapon NSO 13.00; tallow fatty alc. 4.25; Lorol 1.0; ascorbic acid 0.1; sodium sulfite 0.1;

N,N-bis(2-hydroxyethyl)-p-phenylene diamine 2.94; ammonia (25%) to pH 6.20. The mixt. of the two components resulted on the hair a deep violet shade.

ST hair dyeing prepn methylquinoline deriv

IT Dyes
(direct, hair; hair dyeing prepns. contg. methylquinoline derivs.)

IT Hair preparations
(dyes, oxidative; hair dyeing prepns. contg. methylquinoline derivs.)

IT Oxidizing agents
(hair dyeing prepns. contg. benzofurazan derivs.)

IT Carbonates, biological studies
Halides
Phosphates, biological studies
Sulfates, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(hair dyeing prepns. contg. benzofurazan derivs.)

IT 50-21-5D, Lactic acid, salts 56-87-1, L-Lysine, biological studies 59-48-3, Oxindol 59-92-7, DOPA, biological studies 60-18-4, L-Tyrosine, biological studies 62-53-3D, Aniline, derivs. 63-91-2, L-Phenylalanine, biological studies 64-18-6D, Formic acid, salts, biological studies 64-19-7D, Acetic acid, salts, biological studies 65-49-6, 4-Aminosalicylic acid 67-52-7, Barbituric acid 70-26-8, Ornithine 71-00-1, L-Histidine, biological studies 73-22-3, L-Tryptophane, biological studies 74-79-3, L-Arginine, biological studies 77-32-7 77-92-9, Citric acid, biological studies 77-92-9D, Citric acid, salts 79-09-4D, Propionic acid, salts 79-14-1D, salts 83-30-7, 2,4,6-Trihydroxybenzoic acid 83-56-7, 1,5-Dihydroxynaphthalene 87-02-5, 7-Amino-4-hydroxynaphthalene-2-sulfonic acid 87-66-1, Pyrogallol 88-21-1, 2-Aminobenzene sulfonic acid 88-74-4, 2-Nitroaniline 89-57-6, 5-Aminosalicylic acid 89-86-1, 2,4-Dihydroxybenzoic acid 90-05-1, 2-Methoxy phenol 90-15-3, 1-Naphthol 90-20-0, 4-Amino-5-hydroxynaphthalene-2,7-disulfonic acid 92-44-4, 2,3-Dihydroxynaphthalene 95-88-5, 4-Chlororesorcin 98-37-3, 3-Amino-4-hydroxybenzene sulfonic acid 98-79-3, Pyrrolidone-5-carboxylic acid 99-05-8, 3-Aminobenzoic acid 99-07-0, 3-Dimethylaminophenol 99-31-0, 5-Aminoisophthalic acid 99-50-3, 3,4-Dihydroxybenzoic acid 99-56-9, 1,2-Diamino-4-nitrobenzene 100-01-6, 4-Nitroaniline, biological studies 101-77-9, 4,4'-Diaminodiphenylmethane 101-80-4, 4,4'-Diaminodiphenyl ether 102-32-9, 3,4-Dihydroxyphenylacetic acid 106-51-4, Quinone, biological studies 107-92-6D, Butyric acid, salts 108-72-5, 1,3,5-Triaminobenzene 108-73-6, Phloroglucine 109-00-2, 3-Hydroxypyridine 109-52-4D, Valeric acid, salts 110-85-0, Piperazidine, biological studies 110-86-1, Pyridine, biological studies 110-89-4, Piperidine, biological studies 118-12-7, 1,3,3-Trimethyl-2-methyleneindoline **118-70-7**, 4,5,6-Triaminopyrimidine 118-92-3, 2-Aminobenzoic acid 119-59-5, 4,4'-Diaminodiphenylsulfoxide 119-70-0, 4,4'-Diaminodiphenylamine-2-sulfonic acid 121-47-1, 3 Aminobenzene sulfonic acid 121-57-3, 4-Aminobenzene sulfonic acid 123-75-1, Pyrrolidine, biological studies 139-65-1, 4,4'-Diaminodiphenylsulfide 141-84-4, Rhodanine 141-86-6, 2,6-Diamino-pyridine 142-08-5, 2-Hydroxypyridine 142-62-1D, Hexanoic acid, salts 147-85-3, L-Proline, biological studies 149-91-7, Gallic acid, biological studies 150-13-0, 4-Aminobenzoic acid 150-19-6, 3-Methoxy phenol 150-76-5, 4-Methoxy phenol **156-81-0**, 2,4-Diamino pyrimidine 288-13-1, Pyrazole 288-32-4, Imidazole, biological studies 288-88-0, 1H-1,2,4-Triazole 452-58-4, 2,3-Diamino-pyridine 462-08-8, 3-Amino-pyridine 480-66-0 488-87-9, 2,5-Dimethylresorcin 496-73-1 498-94-2, Piperidine-4-

carboxylic acid 504-15-4 504-17-6, Thiobarbituric acid 504-24-5, 4-Amino-pyridine 504-29-0, 2-Amino-pyridine 517-22-6, 2,4-Dimethyl-3-ethylpyrrol e 533-31-3, 3,4-Methylenedioxyphenol 535-75-1, Piperidine-2-carboxylic acid 535-87-5, 3,5-Diaminobenzoic acid 537-65-5, 4,4'-Diaminodiphenylamine 553-86-6, Cumaranone 570-24-1, 1-Amino-2-methyl-6-nitrobenzene 578-66-5, 8-Aminoquinoline 580-17-6, 3-Aminoquinoline 580-22-3, 2-Aminoquinoline 582-17-2, 2,7-Dihydroxynaphthalene 603-81-6, 2,3-Diaminobenzoic acid 606-55-3 608-08-2, 3-Indoxylacetate 608-25-3, 2-Methylresorcin 610-74-2, 2,5-Diaminobenzoic acid 611-03-0, 2,4-Diaminobenzoic acid 611-98-3, 4,4'-Diaminobenzophenone 615-71-4, 1,2,4-Triaminobenzene 616-45-5, Pyrrolidone 616-47-7, 1-Methylimidazole 619-05-6, 3,4-Diaminobenzoic acid 626-64-2, 4-Hydroxypyridine 876-87-9 934-22-5, 5-Aminobenzimidazole **1004-74-6**, Pyrimidinetetramine 1123-55-3, 7-Amino-benzothiazole 1125-60-6, 5-Aminoisoquinoline 1197-55-3, 4-Amino-phenylacetic acid 1344-28-1D, Alumina, salts 1571-72-8, 3-Amino-4-hydroxybenzoic acid 1953-54-4, 5-Hydroxyindole 2380-84-9, 7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1, 4-Hydroxyindole 2654-52-6, 2,3-Dimethylbenzothiazolium-p-toluenesulfonate 2785-06-0, 2,3-Dimethylbenzothiazoliumiodide 2871-01-4, 2-Nitro-4-amino-1-(2-hydroxyethylamino)benzene 3131-52-0, 5,6-Dihydroxyindole 3158-63-2, 1,3-Dimethylthiobarbituric acid 3167-49-5, 6-Aminonicotinic acid 3715-17-1D, Tartrate, salts, biological studies 3855-78-5, 2,3,4-Trimethylpyrrole 4318-76-7, 2,5-Diamino-pyridine 4331-29-7, 7-Aminobenzimidazole 4506-66-5, 1,2,4,5-Tetraaminobenzene-tetrahydrochloride 4928-43-2, 2-Dimethylamino-5-amino-pyridine 4987-97-7, 3,3',4,4'-Tetraaminodiphenyl ether tetrahydrochloride 5007-67-0, 3,3',4,4'-Tetraaminobenzophenone 5131-58-8 5192-03-0, 5-Aminoindole 5192-04-1, 7-Aminoindole 5192-23-4, 4-Aminoindole 5217-47-0, 1,3-Diethylthiobarbituric acid 5307-14-2, 1,4-Diamino-2-nitrobenzene 5318-27-4, 6-Aminoindole 5345-47-1, 2-Aminonicotinic acid 5418-63-3, 1,2,3,3-Tetramethyl-3H-indoliumiodide 5434-20-8, 3-Aminophthalic acid 5718-83-2, Rhodanine-3-acetic acid 5930-28-9, 2,6-Dichloro-4-aminophenol 5959-52-4, 3-Amino-2-naphthoic acid 6201-65-6, 1,3-Benzenediol, 2-chloro- 6259-50-3, 6-Dimethylamino-4-hydroxy-2-naphthalene sulfonic acid 6399-72-0, 6-Amino-7-hydroxynaphthalene-2-sulfonic acid 6628-04-2, 4-Aminoquinaldine 6967-12-0, 6-Aminoindazole 7336-20-1 7439-89-6D, Iron, salts, biological studies 7439-93-2D, Lithium, salts, biological studies 7439-95-4D, Magnesium, salts, biological studies 7439-96-5D, Manganese, salts, biological studies 7440-09-7D, Potassium, salts, biological studies 7440-23-5D, Sodium, salts, biological studies 7440-24-6D, Strontium, salts, biological studies 7440-39-3D, Barium, salts, biological studies 7440-48-4D, Cobalt, salts, biological studies 7440-50-8D, Copper, salts, biological studies 7440-66-6D, Zinc, salts, biological studies 7440-70-2D, Calcium, salts, biological studies **7749-47-5**, 2-Amino-4-methoxy-6-methylpyrimidine 7768-28-7, 2-(2-Hydroxyethyl)phenol **13754-19-3**, 4,5-Diamino-pyrimidine 15477-76-6D, **Phosphonate**, salts 16082-33-0, 3,5-Diaminopyrazole 16867-03-1, 2-Amino-3-hydroxy-pyridine 19335-11-6, 5-Aminoindazole **22715-34-0**, 2-Hydroxy-4,5,6-triaminopyrimidine 23244-87-3, 2,4,5-Triamino-pyridine 23894-07-7, 3,6-Dihydroxy-2,7-naphthalene disulfonic acid 24119-24-2, N,N-Bis[2-(4-aminophenoxy)ethyl]methylamine-trihydrochloride 24144-00-1, 1,4-Dimethyl-quinaldinium-iodide 28020-38-4, 2,3-Diamino-6-methoxy-pyridine 29539-03-5, 5,6-Dihydroxyindoline 41927-50-8 42952-29-4, 1-Ethyl-2-methylnaphtho[1,2-d]thiazolium-p-toluene sulfonate 50610-28-1 53666-79-8, 3-Amino-1H-pyrazol-5-ol 58480-17-4, 1,2-Dimethylnaphtho[1,2-

d]thiazolium-p-toluene sulfonate 61224-35-9 **62496-02-0**, 2-Methylamino-4,5,6-triamino-pyrimidine 66635-40-3, 4,4'-Diaminostilbene-dihydrochloride 74918-21-1, 1,3-Bis(2,4-diaminophenoxy)propane-tetrahydrochloride 83763-47-7, 2-Amino-4-(2-hydroxyethylamino)anisole 84540-47-6, 2,6-Dihydroxy-3,4-dimethylpyridine 85679-78-3, 3,5-Diamino-2,6-dimethoxy-pyridine 85926-99-4, 4-Hydroxyindoline **87814-15-1** 90817-34-8, 3-Amino-2-methylamino-6-methoxy-pyridine 110952-48-2 114402-54-9, 1,3-Bis(4-aminophenylamino)propane 115423-86-4, 1,3-Diamino-2,4-dimethoxybenzene 117907-43-4 128729-30-6 130582-56-8, 1,3-Bis(4-aminophenylamino)-2-propanol 144644-13-3 159661-42-4, 2,5-Dihydroxy-4-morpholinoaniline 202525-73-3, 2,4,5-Triaminophenol-trihydrochloride 202525-74-4, Pentaaminobenzenepentahydrochloride 202525-75-5, Hexaaminobenzene-hexahydrochloride 202525-76-6 202525-77-7 202525-78-8, 4,6-Diaminopyrogallol-dihydrochloride 202525-79-9 220118-56-9 223383-77-5, 4-Amino-3-hydroxynaphthalene-sulfonic acid 223398-08-1 262853-93-0, Piperidine-3-carboxylic acid
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(hair dyeing prepns. contg. benzofurazan derivs.)

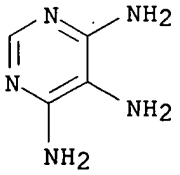
IT 223398-02-5P
RL: BUU (Biological use, unclassified); **SPN (Synthetic preparation)**; BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(hair dyeing prepns. contg. benzofurazan derivs.)

IT 4363-93-3, Quinoline-4-carboxaldehyde 28804-47-9, Toluene sulfonic acid methyl ester
RL: RCT (Reactant); RACT (Reactant or reagent)
(hair dyeing prepns. contg. benzofurazan derivs.)

IT 92-65-9 95-54-5, o-Phenylenediamine, biological studies 95-55-6, 2-Aminophenol 95-70-5 106-50-3, p-Phenylenediamine, biological studies 108-45-2, m-Phenylenediamine, biological studies 123-30-8, 4-Aminophenol 150-75-4, 4-Methylaminophenol 591-27-5, 3-Aminophenol 615-66-7, 2-Chloro-p-phenylenediamine 623-09-6, 4-Methylaminoaniline 636-25-9, 2,5-Diaminophenol 2835-95-2, 2-Methyl-5-aminophenol 2835-99-6, 3-Methyl-4-aminophenol 7575-35-1, N,N-Bis(2-hydroxyethyl)-p-phenylenediamine 14268-66-7, 3,4-Methylenedioxyaniline 19155-86-3, 5-Chlorobenzofurazan 20103-09-7, 2,5-Dichloro-p-phenylenediamine 27601-00-9D, Methylquinoline, derivs. 51387-92-9 55302-96-0, 2-Methyl-5-(2-hydroxyethylamino)phenol 61693-42-3, 3-Amino-2,4-dichlorophenol 70643-19-5 79352-72-0, 4-Amino-2-aminomethylphenol 84540-50-1, 6-Methyl-3-amino-2-chlorophenol 93841-24-8, 2-(2,5-Diaminophenyl)ethanol 94897-05-9, 4,6-Dichlorobenzofuroxan 104333-09-7, 2-Hydroxymethyl-4-aminophenol 110102-86-8, 2-Methyl-5-amino-4-chlorophenol 126335-41-9 137290-86-9, 5-(2-Hydroxyethylamino)-4-methoxy-2-methylphenol 202525-71-1 215377-52-9, 3,4-Methylenediaminoaniline 260981-02-0, N-(2-Methoxyethyl)-p-phenylenediamine 260981-03-1, 2,3-Dichloro-p-phenylenediamine
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(hair dyeing prepns. contg. methylquinoline derivs.)

IT **118-70-7**, 4,5,6-Triaminopyrimidine
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(hair dyeing prepns. contg. benzofurazan derivs.)

RN 118-70-7 HCAPLUS
CN 4,5,6-Pyrimidinetriamine (9CI) (CA INDEX NAME)



L70 ANSWER 12 OF 53 HCAPLUS COPYRIGHT 2003 ACS
AN 2001:265510 HCAPLUS
DN 134:282127
TI Reactive dye compounds, their production and their use
IN Lewis, David Malcolm; He, Dong Wei; Yousaf, Taher Iqbal; Genain, Gilles Yves Marie Fernand
PA The Procter & Gamble Company, USA
SO PCT Int. Appl., 35 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM C09B062-022
ICS D06P003-00; D06P001-38; C09B062-78
CC 41-3 (**Dyes**, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)
Section cross-reference(s): 40, 45, **62**
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2001025337	A1	20010412	WO 2000-US26974	20000929
W: AE, AG, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1218452	A1	20020703	EP 2000-967176	20000929
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
JP 2003511510	T2	20030325	JP 2001-528496	20000929
PRAI GB 1999-23329	A	19991001		
WO 2000-US26974	W	20000929		

OS MARPAT 134:282127
AB A reactive dye compd. comprises: (a) at least one **chromophore** moiety; (b) at least one nitrogen-contg. heterocycle; (c) a **linking** group to **link** each **chromophore** moiety to each nitrogen-contg. heterocycle; characterized in that at least one nitrogen-contg. heterocycle is substituted with at least one Y group wherein Y is a **phosphonate** or a **borate** deriv. The compds. herein have high exhaustion, fixation, and high efficiency values and show significant improvements in terms of reducing spent dye in effluent, increasing dye affinity to the substrate, increasing the dye-substrate covalent bonding, increasing the ability to dye substrates

at room temp., decreasing the amt. of dye removed during the soaping off process, and reducing the staining of adjacent white fabrics. In addn., these dye compds. provide more intense dyeings and require lower levels of salt for dyeing **cotton** substrates. In an example, Procion Yellow MX-3R was treated with Briquest DAPA 60A (acetodiphosphonic acid) to give a bright yellow dye for application to **cotton**.

ST acetodiphosphonic acid treated reactive dye **cotton**

IT **Hair** preparations
(dyes; prodn. of acetodiphosphonic acid-treated dyes reactive dyes)

IT **Textiles**
(**polyamide-wool**; reactive dyeing with acetodiphosphonic acid-treated dyes)

IT Reactive dyes
(prodn. of reactive dyes with improved application and use properties)

IT **Cotton** fibers
Hair
Leather
Silk
Wool
(reactive dyeing with acetodiphosphonic acid-treated dyes)

IT **Polyamide** fibers, processes
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(reactive dyeing with acetodiphosphonic acid-treated dyes)

IT **246220-97-3DP**, Drimalan Yellow FR, reaction products with acetodiphosphonic acid
RL: **IMF (Industrial manufacture)**; TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(deep yellow dye; prodn. of reactive dyes with improved application and use properties)

IT **2809-21-4DP**, Briquest ADPA 60A, reaction products with nitrogen heterocycle-contg. reactive dyes
RL: **IMF (Industrial manufacture)**; TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(dyes; prodn. of reactive dyes with improved application and use properties)

IT **204995-91-5DP**, Levafix Golden Yellow E-G, reaction products with acetodiphosphonic acid
RL: **IMF (Industrial manufacture)**; TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(orange-yellow dye; prodn. of reactive dyes with improved application and use properties)

IT **83929-91-3DP**, Procion Yellow MX-3R, reaction products with acetodiphosphonic acid
RL: **IMF (Industrial manufacture)**; TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(yellow dye; prodn. of reactive dyes with improved application and use properties)

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Antwerp William Peter van; WO 9719188 A 1997 HCAPLUS
(2) Ciba Geigy Ag; GB 1414420 A 1975 HCAPLUS
(3) Crabtree, A; US 4139345 A 1979 HCAPLUS
(4) Gluesenkamp, K; DE 19645601 A 1998 HCAPLUS
(5) Plant, D; US 4092478 A 1978
(6) Unilever Ltd; CA 771632 A 1967

IT **246220-97-3DP**, Drimalan Yellow FR, reaction products with acetodiphosphonic acid
RL: **IMF (Industrial manufacture)**; TEM (Technical or engineered

material use); **PREP (Preparation)**; USES (Uses)
(deep yellow dye; prodn. of reactive dyes with improved application and use properties)
RN 246220-97-3 HCAPLUS
CN Drimalan Yellow F-R (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L70 ANSWER 13 OF 53 HCAPLUS COPYRIGHT 2003 ACS
AN 2001:115124 HCAPLUS
DN 134:183272
TI Quaternized azafluorenones for dyeing hair fibers
IN Moller, Hinrich; Oberkobusch, Doris; Hoffkes, Horst
PA Henkel Kommanditgesellschaft auf Aktien, Germany
SO PCT Int. Appl., 38 pp.
CODEN: PIXXD2
DT Patent
LA German
IC ICM C07D221-06
ICS A61K007-13
CC 62-3 (Essential Oils and **Cosmetics**)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2001010840	A1	20010215	WO 2000-EP7226	20000727
W: AU, BR, CA, CN, CZ, HU, JP, NO, PL, RU, SK, US, VN				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
DE 19937301	A1	20010215	DE 1999-19937301	19990806
EP 1198457	A1	20020424	EP 2000-958303	20000727
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
PRAI DE 1999-19937301	A	19990806		
WO 2000-EP7226	W	20000727		

OS MARPAT 134:183272
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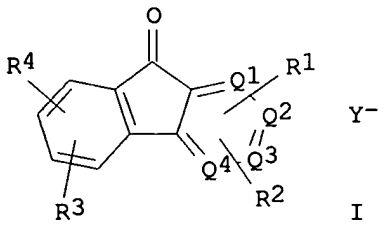

I

AB Hair dyeing compns. contain quaternized azafluorenones (I, where R1, R2, R3 and R4 = e.g., H, halo, C1-4 alkyl or alkoxy group or hydroxyalkoxy, OH, NO2 NH2; Q1, Q2, Q3 and Q4, in total, represent 3 C atoms and a quaternary nitrogen atom which carries C1-4 alkyl or hydroxyalkyl or carboxyalkyl or sulfoalkyl groups, aryl, aralkyl or a heteroaryl group; and Y- = halo, C1-4 alkyl sulfate or alkanesulfonate, sulfate, or **tetrafluoroborate**). These compds. are suitable for dying fibers contg. keratin, esp. human hair. Thus, 1-methyl-5-oxoindeno[1,2-b]pyridinium trifluoromethanesulfonate (II) was prepd. starting from

1-methyl-5-oxoindeno[1,2-b]pyridine-4-azafluoren-9-one and Me trifluoromethanesulfonate. A compn. contg. II and 2,4,5,6-tetraminopyrimidine sulfate gave a dark brown color to hair.

ST quaternized azafluorenone hair dye prepn

IT Surfactants
(anionic; quaternized azafluorenones for dyeing hair fibers)

IT Amines, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(arom., primary; quaternized azafluorenones for dyeing hair fibers)

IT Nitriles, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(arom.; quaternized azafluorenones for dyeing hair fibers)

IT Amines, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(aryl, secondary; quaternized azafluorenones for dyeing hair fibers)

IT Hair preparations
(dyes; quaternized azafluorenones for dyeing hair fibers)

IT Surfactants
(nonionic; quaternized azafluorenones for dyeing hair fibers)

IT Shampoos
(quaternized azafluorenones for dyeing hair fibers)

IT Phenols, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(quaternized azafluorenones for dyeing hair fibers)

IT Surfactants
(zwitterionic; quaternized azafluorenones for dyeing hair fibers)

IT 28020-38-4
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(oquaternized azafluorenones for dyeing hair fibers)

IT 59-48-3 62-53-3, Benzenamine, biological studies 65-49-6 67-52-7, 2,4,6(1H,3H,5H)-Pyrimidinetrione 77-32-7 81-11-8 83-30-7 83-56-7, 1,5-Naphthalenediol 87-02-5 87-66-1, 1,2,3-Benzenetriol 88-21-1 89-57-6 89-86-1 90-05-1 90-15-3, 1-Naphthalenol 90-20-0 92-44-4, 2,3-Naphthalenediol 92-65-9 95-54-5, 1,2-Benzenediamine, biological studies 95-55-6 95-70-5 95-88-5 98-37-3 99-05-8 99-07-0 99-31-0 99-50-3 100-01-6, biological studies 101-77-9 101-80-4 102-32-9 106-50-3, 1,4-Benzenediamine, biological studies 108-45-2, 1,3-Benzenediamine, biological studies 108-46-3, 1,3-Benzenediol, biological studies 108-72-5, 1,3,5-Benzenetriamine 108-73-6, 1,3,5-Benzenetriol 116-63-2 118-12-7 **118-70-7**, 4,5,6-Pyrimidinetriamine 118-92-3 119-59-5 119-70-0 120-80-9, 1,2-Benzenediol, biological studies 121-47-1 121-57-3 123-30-8 123-31-9, 1,4-Benzenediol, biological studies 139-65-1 141-84-4 141-86-6, 2,6-Pyridinediamine 149-91-7, biological studies 150-13-0 150-19-6 150-75-4 150-76-5 **156-81-0**, 2,4-Pyrimidinediamine 288-88-0, 1H-1,2,4-Triazole 452-58-4, 2,3-Pyridinediamine 462-08-8, 3-Pyridinamine 480-66-0 488-87-9 496-73-1 504-15-4 504-17-6 504-24-5, 4-Pyridinamine 504-29-0, 2-Pyridinamine 517-22-6 533-31-3, 1,3-Benzodioxol-5-ol 533-73-3, 1,2,4-Benzenetriol 535-87-5 537-65-5 578-66-5, 8-Quinolinamine 580-17-6, 3-Quinolinamine 580-22-3, 2-Quinolinamine 582-17-2, 2,7-Naphthalenediol 591-27-5 603-81-6 606-55-3 608-08-2 608-25-3 610-74-2 611-03-0 611-98-3 614-82-4 615-50-9 615-66-7 615-71-4, 1,2,4-Benzenetriamine 619-05-6

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RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(quaternized azafluorenones for dyeing hair fibers)

IT 3882-46-0, 5H-Indeno[1,2-b]pyridin-5-one
RL: BUU (Biological use, unclassified); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(quaternized azafluorenones for dyeing hair fibers)

IT 325958-45-0P
RL: BUU (Biological use, unclassified); **SPN (Synthetic preparation)**; BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(quaternized azafluorenones for dyeing hair fibers)

IT 333-27-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(quaternized azafluorenones for dyeing hair fibers)

RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD

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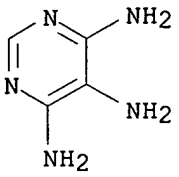
IT **118-70-7**, 4,5,6-Pyrimidinetriamine
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(quaternized azafluorenones for dyeing hair fibers)
RN 118-70-7 HCAPLUS
CN 4,5,6-Pyrimidinetriamine (9CI) (CA INDEX NAME)



L70 ANSWER 14 OF 53 HCAPLUS COPYRIGHT 2003 ACS
AN 2001:45037 HCAPLUS
DN 134:120569
TI Hair dyeing preparations containing heterocyclic aldehydes or ketones
IN Moeller, Hinrich; Oberkobusch, Doris; Hoeffkes, Horst
PA Henkel K.-G.a.a., Germany
SO Ger. Offen., 12 pp.
CODEN: GWXXBX
DT Patent
LA German
IC ICM A61K007-13
CC 62-3 (Essential Oils and **Cosmetics**)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19933187	A1	20010118	DE 1999-19933187	19990715
	WO 2001005359	A2	20010125	WO 2000-EP6399	20000706
	WO 2001005359	A3	20010426		

W: AU, JP, US
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE

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OS MARPAT 134:120569
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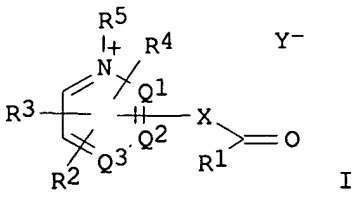

I

AB The invention concerns compns. for dyeing keratin fibers, esp. hair, that contain at least one heterocyclic aldehyde or ketone of the formula (I) and a compd. from the group of arom. amines, hydroxyls,inculuding heterocycles, and compds. with active CH groups. In I R1 = H, C1-C4 alkyl, aryl, heteroaryl; R2, R3, R4 = H, C1-C4 alkyl, hydroxyalkyl, carboxyalkyl, sulfoalkyl, aryl, aralkyl, hetoroaryl; Q1, Q2, Q3 = combination of two C and one N, the N can be quaternized; X = vinylene or vinylene deriv.; Y = halide, benzene sulfonate, p-toluene sulfonate, methane sulfonate, tetrachlorozincate, nitrogen oxide, oxide. Thus 2-formyl-1-methylquinoxalinium-trifluoromethanesulfonate was synthesized from quinoxaline-2-carboxaldehyde and trifluoromethanesulfonic acid Me ester. The product was used in hair dyeing compns.; depending on the selected other dye(s), different colors were obtained; e.g the combination with 2-methyl-3-amino-6-methoxypyridine dihydrochloride resulted redish brown hair color.

ST hair dye heterocyclic aldehyde ketone

IT Hair preparations
(dyes; hair dyeing prepns. contg. heterocyclic aldehydes or ketones)

IT Color
Hair
Oxidizing agents
pH
(hair dyeing prepns. contg. heterocyclic aldehydes or ketones)

IT Aldehydes, biological studies
Halides
Keratins
Ketones, biological studies
Perchlorates
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(hair dyeing prepns. contg. heterocyclic aldehydes or ketones)

IT 50-21-5, Lactic acid, biological studies 59-48-3, Oxindol 65-49-6, 4-Aminosalicylic acid 67-52-7, Barbituric acid 71-47-6, Formate, biological studies 71-50-1, Acetate, biological studies 72-03-7, Propionate, biological studies 75-75-2, Methanesulfonic acid 77-92-9, Citric acid, biological studies 79-14-1, Glycolic acid, biological studies 83-30-7, 2,4,6-Trihydroxybenzoic acid 83-56-7, 1,5-Dihydroxynaphthalene 87-02-5, 7-Amino-4-hydroxynaphthalene-2-sulfonic acid 87-66-1, Pyrogallol 88-21-1, 2-Aminobenzene sulfonic acid 89-57-6, 5-Aminosalicylic acid 89-86-1, 2,4-Dihydroxybenzoic acid 90-05-1, 2-Methoxyphenol 90-20-0, 4-Amino-5-hydroxynaphthalene-2,7-disulfonic acid 92-44-4, 2,3-Dihydroxynaphthalene 95-54-5, o-Phenylenediamine, biological studies 95-55-6, 2-Aminophenol 95-70-5, 2,5-Diaminotoluene 95-88-5, 4-Chlororesorcin 98-37-3, 3-Amino-4-hydroxybenzene sulfonic acid 99-05-8, 3-Aminobenzoic acid 99-07-0, 3-Dimethylaminophenol 99-31-0, 5-Aminoisophthalic acid 99-50-3, 3,4-Dihydroxybenzoic acid 100-01-6, 4-Nitroaniline, biological

studies 101-77-9, 4,4'-Diaminodiphenylmethane 101-80-4, 4,4'-Diaminodiphenylether 102-32-9, 3,4-Dihydroxy-phenylacetic acid 104-15-4, biological studies 106-50-3, p-Phenylenediamine, biological studies 108-45-2, m-Phenylenediamine, biological studies 108-46-3, Resorcin, biological studies 108-72-5, 1,3,5-Triaminobenzene 108-73-6, Phloroglucin 108-99-6, 3-Methylpyridine 109-06-8, 2-Methylpyridine 118-12-7, 1,3,3-Trimethyl-2-methyleneindoline **118-70-7**, 4,5,6-Triaminopyrimidine 118-92-3, 2-Aminobenzoic acid 119-70-0, 4,4'-Diaminodiphenylamine-2-sulfonic acid 121-47-1, 3-Aminobenzene sulfonic acid 121-57-3, 4-Aminobenzene sulfonic acid 123-30-8, 4-Aminophenol 123-31-9, Hydroquinone, biological studies 141-84-4, Rhodanine 142-62-1, Hexanoic acid, biological studies 149-91-7, Gallic acid, biological studies 150-13-0, 4-Aminobenzoic acid 150-19-6, 3-Methoxyphenol 150-75-4, 4-Methylaminophenol 150-76-5, 4-Methoxyphenol 461-55-2, Butyrate, biological studies 488-87-9, 2,5-Dimethylresorcin 496-73-1, 1,3-Benzenediol, 4-methyl- 504-15-4 504-17-6, Thiobarbituric acid 517-22-6, 2,4-Dimethyl-3-ethylpyrrole 533-31-3, 3,4-Methylenedioxyphenol 533-73-3, Hydroxyhydroquinone 535-87-5, 3,5-Diaminobenzoic acid 553-86-6, Cumaranone 578-66-5, 8-Aminoquinoline 580-17-6, 3-Aminoquinoline 580-22-3, 2-Aminoquinoline 582-17-2, 2,7-Dihydroxynaphthalene 591-27-5, 3-Aminophenol 603-81-6, 2,3-Diaminobenzoic acid 606-55-3 608-08-2, 3-Indoxylacetate 608-59-3, Gluconate 610-74-2, 2,5-Diaminobenzoic acid 611-03-0, 2,4-Diaminobenzoic acid 611-98-3, 4,4'-Diaminobenzophenone 615-66-7, 2-Chloro-p-phenylenediamine 615-71-4, 1,2,4-Triaminobenzene 619-05-6, 3,4-Diaminobenzoic acid 623-09-6, 4-Methylaminoaniline 636-25-9, 2,5-Diaminophenol 876-87-9 934-22-5, 5-Aminobenzimidazole **1004-74-6**, 2,4,5,6-Tetraaminopyrimidine **1004-75-7**, 4-Hydroxy-2,5,6-triaminopyrimidine 1123-55-3, 7-Aminobenzothiazole 1125-60-6, 5-Aminoisoquinoline 1197-55-3, 4-Aminophenylacetic acid 1571-72-8, 3-Amino-4-hydroxybenzoic acid **1791-73-7**, 2,4-Diamino-6-methylpyrimidine 1820-80-0, 3-Aminopyrazole 1953-54-4, 5-Hydroxyindole 2380-84-9, 7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1, 4-Hydroxyindole 2654-52-6, 2,3-Dimethylbenzothiazolium-p-toluenesulfonate 2785-06-0, 2,3-Dimethylbenzothiazoliumiodide 2835-95-2, 2-Methyl-5-aminophenol 2835-99-6, 3-Methyl-4-aminophenol 2871-01-4, 2-Nitro-4-amino-1-(2-hydroxyethylamino)benzene 3131-52-0, 5,6-Dihydroxyindole 3158-63-2, 1,3-Dimethylthiobarbituric acid 3167-49-5, 6-Aminonicotinic acid 3198-32-1, Benzenesulfonate, biological studies 3342-78-7, 2-Aminophenylacetic acid 3715-17-1, Tartrate, biological studies 3731-53-1, 4-Aminomethylpyridine 3812-32-6, Carbonate, biological studies 3855-78-5, 2,3,4-Trimethylpyrrole 4331-29-7, 7-Aminobenzimidazole 4506-66-5, 1,2,4,5-Tetraaminobenzene-tetrahydrochloride 4928-43-2, 2-Dimethylamino-5-aminopyridine 4987-97-7, 3,3',4,4'-Tetraaminodiphenyl ether tetrahydrochloride 5007-67-0, 3,3',4,4'-Tetraaminobenzophenone 5131-58-8 5192-03-0, 5-Aminoindole 5192-04-1, 7-Aminoindole 5192-23-4, 4-Aminoindole 5217-47-0, 1,3-Diethylthiobarbituric acid 5318-27-4, 6-Aminoindole 5345-47-1, 2-Aminonicotinic acid 5418-63-3, 1,2,3,3-Tetramethyl-3H-indoliumiodide 5434-20-8, 3-Aminophthalic acid 5718-83-2, Rhodanine-3-acetic acid 5930-28-9, 2,6-Dichloro-4-aminophenol 5959-52-4, 3-Amino-2-naphthoic acid 6201-65-6, 1,3-Benzenediol, 2-chloro- 6259-50-3, 6-Dimethylamino-4-hydroxy-2-naphthalene sulfonic acid 6358-09-4, 2-Amino-6-chloro-4-nitrophenol 6399-72-0, 6-Amino-7-hydroxy-2-naphthalenesulfonic acid 6628-04-2, 4-Aminoquinaldine 6967-12-0, 6-Aminoindazole 7336-20-1 7429-90-5D, Aluminum, salts, biological studies 7439-89-6D, Iron, salts, biological studies 7439-93-2D, Lithium, salts, biological studies 7439-95-4D,

Magnesium, salts, biological studies 7439-96-5D, Manganese, salts, biological studies 7440-09-7D, Potassium, salts, biological studies 7440-23-5D, Sodium, salts, biological studies 7440-24-6D, Strontium, salts, biological studies 7440-48-4D, Cobalt, salts, biological studies 7440-50-8D, Copper, salts, biological studies 7440-66-6D, Zinc, salts, biological studies 7440-70-2D, Calcium, salts, biological studies 7575-35-1, N,N-Bis(2-hydroxyethyl)p-phenylenediamine 7722-84-1, Hydrogen peroxide, biological studies **7749-47-5**, 2-Amino-4-methoxy-6-methylpyrimidine 7768-28-7, 2-(2-Hydroxyethyl)phenol 10023-74-2, Valerate, biological studies **13297-17-1**, 2-Acetyl-3-methylquinoxaline-1,4-dioxide 14265-44-2, Phosphate, biological studies 14268-66-7, 3,4-Methylenedioxyaniline 14338-36-4, 3-Aminophenylacetic acid 14808-79-8, Sulfate, biological studies 15477-76-6, **Phosphonate** 16082-33-0, 3,5-Diaminopyrazole 16859-86-2, 1,4-Dimethylquinolinium-iodide 19335-11-6, 5-Aminoindazole 20103-09-7, 2,5-Dichloro-p-phenylenediamine **22715-28-2 22715-34-0**, 2-Hydroxy-4,5,6-triaminopyrimidine 23244-87-3, 2,4,5-Triaminopyridine 23612-57-9, 2-Amino-3-hydroxymethylpyridine 24119-24-2, N,N-Bis[2-(4-aminophenoxy)ethyl]methylamine-trihydrochloride 28020-38-4, 2,3-Diamino-6-methoxypyridine 29539-03-5, 5,6-Dihydroxyindoline 31905-57-4, Nitrophenylenediamine 34572-45-7, 2-Nitro-1-amino-4-[bis(2-hydroxyethyl)amino]benzene 34984-16-2, 2,6-Diaminomethylpyridine 37181-39-8, Trifluoromethanesulfonate 41927-50-8 43093-74-9, Nitroaminophenol 50610-28-1 51387-92-9 53666-79-8 55302-96-0, 2-Methyl-5-(2-hydroxyethylamino)phenol 61224-35-9 61693-42-3, 3-Amino-2,4-dichlorophenol **62496-02-0**, 2-Methylamino-4,5,6-triaminopyrimidine 66635-40-3, 4,4'-Diaminostilbene-dihydrochloride 70643-19-5, 2,4-Diaminophenoxyethanol 74918-21-1, 1,3-Bis (2,4-diaminophenoxy)propane-tetrahydrochloride 79352-72-0, 2-Aminomethyl-4-aminophenol 83763-47-7, 2-Amino-4-(2-hydroxyethylamino)anisole 84540-47-6, 2,6-Dihydroxy-3,4-dimethylpyridine 84540-50-1, 6-Methyl-3-amino-2-chlorophenol 85679-78-3, 3,5-Diamino-2,6-dimethoxypyridine 85926-99-4, 4-Hydroxyindoline 90008-38-1, 2,5-Pyridinedimethanamine 90817-34-8, 3-Amino-2-methylamino-6-methoxypyridine 93841-24-8, 2-(2,5-Diaminophenyl)ethanol 104333-09-7, 2-Hydroxymethyl-4-aminophenol 105250-18-8, 2,4-Pyridinedimethanamine 110102-86-8, 2-Methyl-5-amino-4-chlorophenol 110952-48-2 114402-54-9, 1,3-Bis(4-aminophenylamino)propane 115423-86-4, 1,3-Diamino-2,4-dimethoxybenzene 117907-43-4, 4-Amino-2-nitrodiphenylamine-2'-carboxylic acid 128729-30-6 132589-61-8, 1H-Indol-2-ol, 2,3-dihydro- 137290-86-9, 5-(2-Hydroxyethylamino)-4-methoxy-2-methylphenol 144644-13-3 159519-79-6, Brenzcatechin 159661-42-4, 2,5-Dihydroxy-4-morpholinoaniline 202525-71-1 202525-73-3, 2,4,5-Triaminophenol-trihydrochloride 202525-74-4, Pentaaminobenzene-pentahydrochloride 202525-75-5, Hexaaminobenzene-hexahydrochloride 202525-76-6, 1,3-Benzenediol-, 2,4,6-triamino-,trihydrochloride 202525-77-7 202525-78-8, 4,6-Diaminopyrogallol-dihydrochloride 202525-79-9 215377-52-9, 3,4-Methylene-diaminoaniline 220118-56-9 223383-77-5, 4-Amino-3-hydroxynaphthalene-sulfonic acid 260981-01-9 260981-02-0, N-(2-Methoxyethyl)-p-phenylenediamine 260981-03-1, 2,3-Dichloro-p-phenylenediamine 320577-63-7 **320577-64-8D**, salts **320577-66-0D**, salts **320577-67-1D**, salts **320577-68-2D**, salts **320577-69-3D**, salts **320577-70-6D**, salts **320577-71-7D**, salts **320577-72-8D**, salts **320577-73-9D**, salts **320577-74-0D**, salts **320577-75-1D**, salts **320577-76-2D**, salts **320577-77-3 320577-78-4D**,

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(hair dyeing prepns. contg. heterocyclic aldehydes or ketones)

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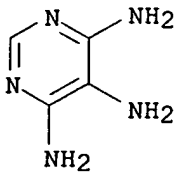
(hair dyeing prepns. contg. heterocyclic aldehydes or ketones)

IT **320577-65-9P**
RL: BUU (Biological use, unclassified); **SPN (Synthetic preparation)**; BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(hair dyeing prepns. contg. heterocyclic aldehydes or ketones)

IT **118-70-7**, 4,5,6-Triaminopyrimidine
RL: BUU (Biological use, unclassified); **SPN (Synthetic preparation)**; USES (Uses); **PREP (Preparation)**
(hair dyeing prepns. contg. heterocyclic aldehydes or ketones)

RN 118-70-7 HCAPLUS
CN 4,5,6-Pyrimidinetriamine (9CI) (CA INDEX NAME)



L70 ANSWER 15 OF 53 HCAPLUS COPYRIGHT 2003 ACS
AN 2000:808548 HCAPLUS
DN 133:366177
TI Hair dye preparations containing diaminobenzene derivatives
IN Chassot, Laurent; Descloux, Laurence
PA Wella Aktiengesellschaft, Germany
SO Eur. Pat. Appl., 32 pp.
CODEN: EPXXDW
DT Patent
LA German
IC ICM C07D213-38
ICS C07D213-85; C07D213-61; C07D213-26; C07D213-82; C07D213-73; C07D213-64; C07D213-65; C07D213-68; C07D213-84; C07D239-26; A61K007-13
CC 62-3 (Essential Oils and **Cosmetics**)
Section cross-reference(s): 27

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 1052252	A1	20001115	EP 2000-102127	20000204
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
DE 19922392	C1	20010125	DE 1999-19922392	19990514
US 6461388	B1	20021008	US 2000-541937	20000403
JP 2000344749	A2	20001212	JP 2000-136558	20000510
BR 2000001753	A	20010102	BR 2000-1753	20000512

PRAI DE 1999-19922392 A 19990514
OS MARPAT 133:366177
AB Hair dye prepns. contain diaminobenzene derivs. such as 2,5-diamino-1-(3-pyridyl)benzene, 2,5-diamino-1-(2-pyrimidyl)benzene, 2,5-diamino-1-(6-nitro-2-pyridyl)benzene or their salts and suitable coupler components. Thus, 2,5-diamino-1-(3-pyridyl)benzene-2HCl (I) was prepd. by the coupling reaction of 3-pyridylboric acid with 2,5-ter-butyloxycarbonylaminobromobenzene in the presence of tetrakis(triphenylphosphine)palladium followed by the removal of the protecting group. A formulation comprised I 0.00125 and m-aminophenol (coupler) 0.00125 mol, 8% potassium oleate soln. 10.0, 22% NH3 soln. 10.0, isopropanol 10.0, ascorbic acid 0.3, and water to 100 g.
ST diaminobenzene hair dye prepn; pyridylbenzene amine hair dye prepn
IT Hair preparations
(dyes, oxidative; hair dye prepns. contg. diaminobenzene derivs.)
IT Hair preparations
(dyes; hair dye prepns. contg. diaminobenzene derivs.)
IT 95-70-5, 2,5-Diaminotoluene 106-50-3, 1,4-Diaminobenzene, biological studies 123-30-8, 4-Aminophenol **1004-74-6D**, Tetraaminopyrimidine, derivs. 16461-98-6D, 1H-Pyrazole-3,4-diamine, derivs. 93841-24-8
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(hair dye prepns. contg. diaminobenzene derivs.)
IT 306958-53-2P 306958-58-7P 306958-60-1P 306958-63-4P 306958-65-6P
306958-68-9P 306958-70-3P 306958-73-6P 306958-75-8P 306958-78-1P
306958-81-6P **306958-84-9P** 306958-87-2P 306958-89-4P
306958-91-8P 306958-92-9P 306958-94-1P 306958-96-3P 306958-97-4P
306959-00-2P 306959-02-4P 306959-03-5P 306959-05-7P
306959-07-9P 306959-09-1P 306959-10-4P 306959-11-5P
306959-12-6P 306959-13-7P 306959-14-8P 306959-15-9P 306959-16-0P
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306959-22-8P 306959-23-9P 306959-24-0P 306959-25-1P 306959-26-2P
306959-27-3P 306959-28-4P 306959-29-5P 306959-30-8P 306959-31-9P
306959-32-0P 306959-33-1P 306959-34-2P 306959-35-3P 306959-36-4P
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306959-42-2P 306959-43-3P 306959-44-4P 306959-45-5P 306959-46-6P
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306959-81-9P **306959-82-0P** 306959-83-1P 306959-84-2P
306959-85-3P 306959-86-4P 306959-87-5P 306959-88-6P 306959-89-7P
306959-90-0P 306959-91-1P 306959-92-2P 306959-93-3P 306959-94-4P
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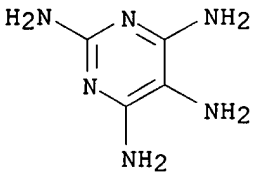
306960-00-9P 306960-01-0P 306960-02-1P 306960-03-2P 306960-04-3P
306960-05-4P 306960-06-5P 306960-07-6P 306960-08-7P
RL: BUU (Biological use, unclassified); **SPN (Synthetic preparation)**; BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(hair dye prepns. contg. diaminobenzene derivs.)
IT 109-04-6 121-43-7, Trimethyl **borate** 1692-25-7 3430-17-9
3510-66-5 4487-59-6 **4595-60-2** 4926-28-7 5315-25-3
28733-43-9 35590-37-5 50488-42-1 175205-82-0 244104-65-2
RL: RCT (Reactant); RACT (Reactant or reagent)

(hair dye prepns. contg. diaminobenzene derivs.)
IT 244104-66-3P 251115-20-5P
RL: RCT (Reactant); **SPN (Synthetic preparation)**; **PREP (Preparation)**; RACT (Reactant or reagent)
(hair dye prepns. contg. diaminobenzene derivs.)
RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Henkel & Cie Gmbh; DE 2518393 A 1976 HCAPLUS
(2) Konrad, G; US 4994087 A 1991 HCAPLUS
(3) Lange Fritz-Walter; US 3647351 A 1972 HCAPLUS
(4) Oreal; EP 0740931 A 1996 HCAPLUS
(5) Wella Ag; EP 0943614 A 1999 HCAPLUS
(6) Wella Ag; EP 0963982 A 1999 HCAPLUS
(7) Wella Ag; DE 19822041 A 1999 HCAPLUS
IT **1004-74-6D**, Tetraaminopyrimidine, derivs.
RL: BUU (Biological use, unclassified); **SPN (Synthetic preparation)**; USES (Uses); **PREP (Preparation)**
(hair dye prepns. contg. diaminobenzene derivs.)
RN 1004-74-6 HCAPLUS
CN Pyrimidinetetramine (9CI) (CA INDEX NAME)



L70 ANSWER 16 OF 53 HCAPLUS COPYRIGHT 2003 ACS
AN 2000:475512 HCAPLUS
DN 133:109636
TI Topical compositions comprising protected functional thiols
IN Glenn, Robert Wayne, Jr.; Katritzky, Alan Roy; Block, Eric; Shair, Matthew David; Butts, Matthew David
PA The Procter & Gamble Company, USA; General Electric Company
SO PCT Int. Appl., 132 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61K007-00
CC 62-4 (Essential Oils and **Cosmetics**)
Section cross-reference(s): 28
FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2000040210	A2	20000713	WO 2000-US444	20000107
WO 2000040210	A3	20011129		

W: AE, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,

CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
CA 2356325 AA 20000713 CA 2000-2356325 20000107
EP 1143916 A2 20011017 EP 2000-904252 20000107
EP 1143916 A3 20020206
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO
BR 2000007437 A 20011120 BR 2000-7437 20000107
JP 2002541058 T2 20021203 JP 2000-591967 20000107
PRAI US 1999-115278P P 19990108
US 1999-129453P P 19990415
WO 2000-US444 W 20000107
OS MARPAT 133:109636

AB This invention relates to a topical compn. for treating amino acid based substrates comprising a protected thiol compd. having the formula R-(S-Pr)m where R is a functional group, S is sulfur, and Pr is a heterocyclic protecting group, and m is an integer between 1 and 100. The invention further relates to systems which comprise this protected thiol compd. and an activating mechanism. The protected thiol compds. of the present invention may be used in hair care compns., textile care compns., cosmetic compns., oral care compns., skin care, nail care, laundry care, acne care and animal care compns. A preferred embodiment of the present invention provides a silicone compn. and method for making. The compn. comprises a polysiloxane or silicone resin, at least one linker, and at least one mol. hook. Pyridinium, 1-methyl-2-[(hexadecyl)thiol]-, bromide (I) was prepd. by the reaction of 1-bromohexadecane and methyl-2-thiopyridone. A hair prepn. contained I 3.00, urea 10.00, cocamidopropyl betaine 0.80, isopropanol 50.00, and water q.s. 100%.

ST topical cosmetic thiol deriv
IT Hair preparations
(conditioners, styling; topical compns. comprising protected functional thiols)
IT Hair preparations
(conditioners; topical compns. comprising protected functional thiols)
IT Hair preparations
(dyes; topical compns. comprising protected functional thiols)
IT Cosmetics
(mascaras; topical compns. comprising protected functional thiols)
IT Cosmetics
(nail lacquers; topical compns. comprising protected functional thiols)
IT Cotton
Dentifrices
Dyes
Fur
Hair
Nail (anatomical)
Shampoos
Skin
Textiles
Tooth
Wool
(topical compns. comprising protected functional thiols)
IT Polysiloxanes, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(topical compns. comprising protected functional thiols)
IT 83517-25-3P 86763-35-1P, S-Hexadecyl ethanethioate 115254-29-0DP, reaction product pyridiniumthio-linked derivs. 115254-29-0P
282529-95-7P 282530-02-3P 282530-06-7P

282530-12-5P 282530-15-8P 282530-19-2P **282530-27-2P**
282530-31-8P 282530-34-1P 282530-38-5P 282530-41-0P 282530-44-3P
282530-45-4P 282530-46-5P 282530-52-3P **282530-54-5P**
282530-56-7P 282530-58-9P 282530-60-3P
282530-63-6P 282530-65-8P 282530-67-0P
282530-71-6P
RL: BUU (Biological use, unclassified); **SPN (Synthetic preparation)**; BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(topical compns. comprising protected functional thiols)

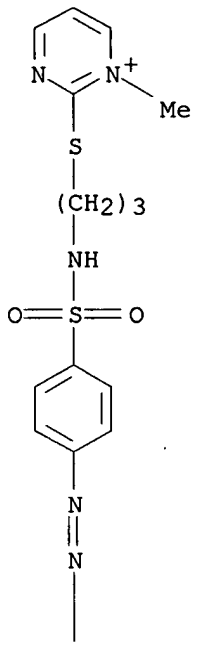
IT 60-56-0, 2-Mercapto-1-methylimidazole 74-88-4, Iodomethane, reactions 75-36-5, Acetyl chloride 77-78-1, Dimethyl sulfate 96-33-3 100-11-8, 4-Nitrobenzyl bromide 102-52-3, Malonaldehyde bis(dimethylacetal) 112-67-4, Palmitoyl chloride 112-82-3, 1-Bromohexadecane 121-60-8 135-19-3, 2 Naphthol, reactions 140-89-6 149-91-7, Gallic acid, reactions 151-01-9, O-Ethyl xanthate 598-52-7, 1 Methyl 2 thiourea 605-65-2 627-18-9, 3-Bromo-1-propanol 631-67-4 694-85-9, 1-Methyl-2-pyridone 1592-20-7 2043-53-0 2254-94-6, 3-Methyl benzothiazole-2-thione 2576-47-8 2917-26-2, 1-Hexadecanethiol 5003-71-4, 3-Bromopropylamine hydrobromide 5394-18-3, N-(4-Bromobutyl)phthalimide 7632-00-0, Sodium nitrite 19172-47-5, Lawesson's reagent 24517-45-1, 2-(Methylsulfonyl)ethanethiol 27081-10-3, Tropylium **tetrafluoroborate** 33252-63-0 50816-19-8, 8-Bromo-1-octanol 50970-65-5 156118-35-3D, TMS-terminated, reaction product with vinylbenzyl chloride, 1-methyl-2-pyrimidinethione 282530-04-5 282530-25-0, 8-Bromooctyl gallate
RL: RCT (Reactant); RACT (Reactant or reagent)
(topical compns. comprising protected functional thiols)

IT 2044-27-1P 31098-39-2P 73547-86-1P 78234-05-6P 83626-75-9P 92647-21-7P 124452-83-1P 201160-48-7P 282529-99-1P 282530-10-3P 282530-21-6P **282530-23-8P** 282530-29-4P, 3-Bromopropyl gallate 282530-48-7P 282530-50-1P
RL: RCT (Reactant); **SPN (Synthetic preparation)**; **PREP (Preparation)**; RACT (Reactant or reagent)
(topical compns. comprising protected functional thiols)

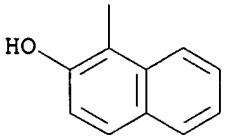
IT **282529-95-7P**
RL: BUU (Biological use, unclassified); **SPN (Synthetic preparation)**; **PREP (Preparation)**; **PREP (Preparation)**; USES (Uses)
(topical compns. comprising protected functional thiols)

RN 282529-95-7 HCAPLUS
CN Pyrimidinium, 2-[[3-[[[4-[(2-hydroxy-1-naphthalenyl)azo]phenyl]sulfonyl]amino]propyl]thio]-1-methyl-, bromide (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



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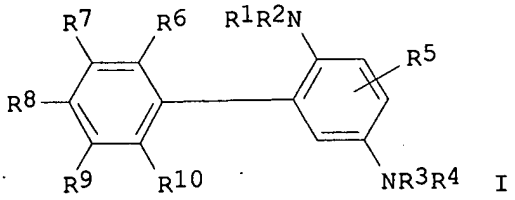
L70 ANSWER 17 OF 53 HCAPLUS COPYRIGHT 2003 ACS
AN 1999:753020 HCAPLUS
DN 132:6216
TI Oxidative hair coloring agents containing 2,5-diamino-1-phenylbenzene derivatives
IN Braun, Hans-Juergen; Chassot, Laurent
PA Wella A.-G., Germany
SO PCT Int. Appl., 71 pp.
CODEN: PIXXD2
DT Patent
LA German
IC ICM A61K007-00
CC 62-3 (Essential Oils and **Cosmetics**)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

PI	WO 9959527	A2	19991125	WO 1999-EP1084	19990219
	WO 9959527	A3	20000120		
	W: BR, JP, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	DE 19822041	A1	19991223	DE 1998-19822041	19980516
	BR 9906440	A	20000711	BR 1999-6440	19990219
	EP 1051143	A2	20001115	EP 1999-913174	19990219
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	JP 2002511106	T2	20020409	JP 1999-557357	19990219
	US 6500213	B1	20021231	US 2000-446726	20000314
PRAI	DE 1998-19822041	A	19980516		
	WO 1999-EP1084	W	19990219		

OS MARPAT 132:6216

GI



I

AB Oxidative dyes for keratin fibers based on a combination of developers and couplers, including .gtoreq.1 2,5-diamino-1-phenylbenzene deriv. [I; R1-R4 = H, alkyl, (di)hydroxyalkyl,alkoxyalkyl; or R1NR2 and/or R3NR4 = 4-8-membered aliph. ring; .gtoreq.2 of R1-R4 = H; R5 = H, OH, halo, (hydroxy)alkyl, alkoxy; R6-R10 = H, halo, CN, OH, alkyl, alkoxy, alkylthio, SH, NO2, (substituted) amino, CF3, CHO, etc.; or 2 neighboring groups of R6-R10 = OCH2O] or salt thereof as a developer, provide intense shades of color which are extremely fast to light, washing, and friction and are stable during storage. Thus, bromo-p-phenylenediamine-HCl was converted with di-tert-Bu dicarbonate to 2,5-bis(tert-butoxycarbonylamino)bromobenzene, and then with benzeneboric acid in the presence of tetrakis(triphenylphosphine)palladium to I-2HCl (R1-R10 = H) (II). A hair dye compn. contg. II 0.320, 5-amino-2-methylphenol 0.300, 4-amino-3-methylphenol 0.600, 4-aminophenol 0.600, .alpha.-naphthol 0.100, 2-chloro-6-(ethylamino)-4-nitrophenol 0.200, 8% aq. K oleate 10.000, 22% aq. NH3 10.000, iso-PrOH 10.000, ascorbic acid 0.300, and H2O to 100.000 g, when mixed 1:1 with 6% H2O2 and applied to bleached hair, produced a red color.

ST oxidative hair dye aminophenylbenzene

IT Hair preparations
(dyes, oxidative; oxidative hair coloring agents contg. diaminophenylbenzene derivs.)

IT 251114-11-1P
RL: BUU (Biological use, unclassified); **SPN (Synthetic preparation)**; BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(7oxidative hair coloring agents contg. diaminophenylbenzene derivs.)

IT 90-15-3, .alpha.-Naphthol 95-70-5, 2,5-Diaminotoluene 96-91-3, 2-Amino-4,6-dinitrophenol 106-50-3, 1,4-Benzenediamine, biological

studies 108-46-3, 1,3-Benzenediol, biological studies 123-30-8, 4-Aminophenol 591-27-5, 3-Aminophenol 608-25-3, 1,3-Dihydroxy-2-methylbenzene **1004-74-6D**, Tetraaminopyrimidine, derivs. 2835-95-2, 5-Amino-2-methylphenol 2835-97-4, 2-Amino-3-methylphenol 2835-98-5, 2-Amino-5-methylphenol 2835-99-6, 4-Amino-3-methylphenol 16461-98-6D, 1H-Pyrazole-3,4-diamine, derivs. 54381-16-7 59320-13-7 70643-19-5 78886-51-8 83763-48-8 93841-24-8 93841-25-9 131657-78-8, 2-Chloro-6-(ethylamino)-4-nitrophenol 135043-64-0, 4-Amino-2-(aminomethyl)phenol dihydrochloride 155601-30-2, 4,5-Diamino-1-(2-hydroxyethyl)-1H-pyrazole sulfate
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(oxidative hair coloring agents contg. diaminophenylbenzene derivs.)

IT 109942-17-8P, [1,1'-Biphenyl]-2,5-diamine 112196-97-1P 251114-04-2P 251114-05-3P 251114-06-4P 251114-07-5P, [1,1'-Biphenyl]-2,3',5-triamine 251114-08-6P 251114-09-7P 251114-10-0P 251114-12-2P 251114-14-4P 251114-15-5P 251114-16-6P 251114-17-7P 251114-18-8P 251114-19-9P 251114-20-2P 251114-21-3P 251114-22-4P 251114-23-5P 251114-24-6P 251114-25-7P 251114-26-8P 251114-27-9P 251114-28-0P 251114-29-1P 251114-30-4P 251114-31-5P 251114-32-6P 251114-33-7P 251114-34-8P 251114-35-9P 251114-36-0P 251114-37-1P 251114-38-2P 251114-39-3P 251114-40-6P 251114-41-7P 251114-42-8P 251114-43-9P 251114-44-0P 251114-45-1P 251114-46-2P 251114-47-3P 251114-48-4P 251114-49-5P 251114-50-8P 251114-51-9P 251114-52-0P 251114-53-1P 251114-54-2P 251114-55-3P 251114-56-4P 251114-57-5P 251114-58-6P 251114-59-7P 251114-60-0P 251114-61-1P 251114-62-2P 251114-63-3P 251114-64-4P 251114-65-5P 251114-66-6P 251114-67-7P 251114-68-8P 251114-69-9P 251114-70-2P 251114-71-3P 251114-72-4P 251114-73-5P 251114-74-6P 251114-75-7P 251114-76-8P 251114-77-9P 251114-78-0P 251114-79-1P 251114-80-4P 251114-81-5P 251114-82-6P 251114-83-7P 251114-84-8P 251114-85-9P 251114-86-0P 251114-87-1P 251114-88-2P 251114-89-3P 251114-90-6P 251114-91-7P 251114-92-8P 251114-93-9P 251114-94-0P 251114-95-1P 251114-96-2P 251114-97-3P 251114-98-4P 251114-99-5P 251115-00-1P 251115-01-2P 251115-02-3P 251115-03-4P 251115-04-5P 251115-05-6P 251115-06-7P 251115-07-8P 251115-08-9P 251115-09-0P 251115-10-3P 251115-11-4P 251115-12-5P
RL: BUU (Biological use, unclassified); **SPN (Synthetic preparation)**; BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(oxidative hair coloring agents contg. diaminophenylbenzene derivs.)

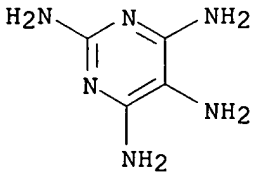
IT 95-46-5, 1-Bromo-2-methylbenzene 98-80-6, Benzeneboronic acid 99-90-1, 1-Bromo-4-acetylbenzene 101-55-3, 1-Bromo-4-phenoxybenzene 104-92-7, 4-Bromoanisole 104-95-0 106-38-7, 1-Bromo-4-methylbenzene 106-39-8, 1-Bromo-4-chlorobenzene 106-40-1, 4-Bromoaniline 106-41-2, 4-Bromophenol 108-37-2, 1-Bromo-3-chlorobenzene 109-85-3, 2-Methoxyethylamine 111-42-2, Diethanolamine, reactions 121-43-7, Trimethyl borate 123-75-1, Pyrrolidine, reactions 124-40-3, Dimethylamine, reactions 141-43-5, reactions 327-75-3, 1-Bromo-2,4-bis(trifluoromethyl)benzene 344-38-7 350-30-1, 3-Chloro-4-fluoronitrobenzene 392-83-6, 1-Bromo-2-trifluoromethylbenzene 401-78-5, 1-Bromo-3-trifluoromethylbenzene 402-43-7, 1-Bromo-4-trifluoromethylbenzene 445-01-2 452-74-4 460-00-4, 1-Bromo-4-fluorobenzene 553-94-6, 1-Bromo-2,5-dimethylbenzene 556-96-7, 1-Bromo-3,5-dimethylbenzene 576-23-8, 1-Bromo-2,3-dimethylbenzene 577-19-5, 1-Bromo-2-nitrobenzene 578-57-4, 1-Bromo-2-methoxybenzene 583-70-0, 1-Bromo-2,4-dimethylbenzene 583-71-1, 1-Bromo-3,4-dimethylbenzene 586-61-8, 1-Bromo-4-isopropylbenzene 586-78-7, 1-Bromo-4-nitrobenzene 588-93-2,

1-Bromo-4-propylbenzene 588-96-5, 1-Bromo-4-ethoxybenzene 591-17-3, 1-Bromo-3-methylbenzene 591-20-8 616-30-8, 2,3-Dihydroxypropylamine 623-00-7, 1-Bromo-4-cyanobenzene 694-80-4, 1-Bromo-2-chlorobenzene 698-67-9, 4-Bromobenzamide 1007-15-4 1072-85-1, 1-Bromo-2-fluorobenzene 1073-06-9, 1-Bromo-3-fluorobenzene 1074-16-4 1081-73-8 1193-72-2, 1-Bromo-2,4-dichlorobenzene 1422-53-3 1450-75-5 1585-07-5, 1-Bromo-4-ethylbenzene 1973-22-4, 1-Bromo-2-ethylbenzene 2113-57-7, 3-Bromobiphenyl 2142-63-4 2357-52-0, 1-Bromo-3-fluoro-4-methoxybenzene 2655-84-7, 1-Bromo-3-ethoxybenzene 2859-78-1, 1-Bromo-3,4-dimethoxybenzene 3460-23-9 3972-65-4, 1-Bromo-4-tert-butylbenzene 4654-39-1 5326-34-1 5344-78-5 5391-88-8 5469-19-2, 1-Bromo-2,4,5-trimethylbenzene 5720-07-0, 4-Methoxybenzeneboronic acid 5798-75-4, Ethyl 4-bromobenzoate 6259-08-1 6698-13-1, 1-Bromo-2,3-methylenedioxybenzene 6952-59-6, 1-Bromo-3-cyanobenzene 7149-70-4 7295-44-5 7745-93-9, 1-Bromo-2-methyl-5-nitrobenzene 10269-01-9 10342-83-3 10365-98-7, 3-Methoxybenzeneboronic acid 13331-27-6, 3-Nitrobenzeneboronic acid 13852-51-2, 5-Chloro-2-methyl-4-nitroaniline 14472-14-1 16588-26-4 17715-69-4, 1-Bromo-2,4-dimethoxybenzene 19472-74-3 19614-16-5 19752-55-7, 1-Bromo-3,5-dichlorobenzene 22190-38-1 24398-88-7, Ethyl 3-bromobenzoate 24424-99-5, Di-tert-butyl dicarbonate 25245-34-5, 1-Bromo-2,5-dimethoxybenzene 27060-75-9 29558-77-8, 4-Bromo-4'-hydroxybiphenyl 29682-39-1, 1-Bromo-2-chloro-4-nitrobenzene 30418-59-8, 3-Aminobenzeneboronic acid 34598-49-7, 5-Bromoindan-1-one 41492-05-1, 1-Bromo-4-butylbenzene 51554-95-1, 1-Bromo-4-pentylbenzene 55289-35-5 56961-77-4, 1-Bromo-2,3-dichlorobenzene 60956-26-5 98816-61-6 101079-49-6 117572-79-9 150351-43-2 167415-27-2 244104-66-3 251115-21-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(oxidative hair coloring agents contg. diaminophenylbenzene derivs.)

IT 29608-77-3P 103977-87-3P 244104-65-2P 251115-13-6P 251115-14-7P 251115-15-8P 251115-16-9P 251115-17-0P 251115-18-1P 251115-19-2P 251115-20-5P
RL: RCT (Reactant); **SPN (Synthetic preparation); PREP (Preparation)**; RACT (Reactant or reagent)
(oxidative hair coloring agents contg. diaminophenylbenzene derivs.)

IT **1004-74-6D**, Tetraaminopyrimidine, derivs.
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(oxidative hair coloring agents contg. diaminophenylbenzene derivs.)

RN 1004-74-6 HCAPLUS
CN Pyrimidinetetramine (9CI) (CA INDEX NAME)



L70 ANSWER 18 OF 53 HCAPLUS COPYRIGHT 2003 ACS
AN 1999:84012 HCAPLUS
DN 130:143948
TI Bis-(2,4-diaminophenoxy)benzenes and their use as coupling components in oxidative hair coloring compositions and methods

IN Lim, Mu-Ill; Pan, Yuh-guo; Stasaitis, Linas R.
PA Bristol-Myers Squibb Company, USA
SO U.S., 9 pp.
CODEN: USXXAM
DT Patent
LA English
IC ICM A61K007-13
ICS C07C217-90
NCL 008408000
CC 62-3 (Essential Oils and **Cosmetics**)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5865854	A	19990202	US 1997-975912	19971121
	EP 918051	A1	19990526	EP 1998-203886	19981119
	EP 918051	B1	20010912		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	ES 2161014	T3	20011116	ES 1998-203886	19981119
PRAI	US 1997-975912	A	19971121		

OS MARPAT 130:143948
AB The invention provides compns. and methods contg. novel bis-(2,4-diaminophenoxy)benzene coupling compds., and cosmetically acceptable salts thereof, for use with conventional primary intermediate dye compds. and oxidizing agents for the oxidative coloring of human hair. The compns. of the invention may also contain other components typically used in oxidative hair dye prepns. to impart intense and lasting coloration to hair. A hair dye lotion contained N,N-bis(2-hydroxyethyl)-p-phenylenediamine 0.588, bis-(2,4-diaminophenoxy)benzene 0.322, cocamidopropyl betaine 2, ethylene glycol monoethyl ether 1, benzyl alc. 1, monoethanolamine 0.5, Na sulfite 0.02, EDTA 0.02, ascorbic acid 0.04, and water q.s. to 10 g. Swatches of blended gray and bleached human hair were soaked in the dye compn. plus 20 vols. hydrogen peroxide (10.0 g) for 30 min at room temp., and then rinsed with water, shampooed, and dried. The hair swatches were dyed a blue-black color having deep nuances and color fastness.
ST oxidative hair dye coupler bisdiaminophenoxybenzene prepn
IT Hair preparations
(dyes, oxidative; bis(2,4-diaminophenoxy)benzenes as couplers in oxidative hair dyes)
IT 124-43-6 **3085-95-8** 7722-84-1, Hydrogen peroxide (H2O2), biological studies 11138-47-9, Sodium **perborate** 15630-89-4, Sodium percarbonate
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(bis(2,4-diaminophenoxy)benzenes as couplers in oxidative hair dyes)
IT 220011-43-8P 220011-49-4P 220011-56-3P
RL: BUU (Biological use, unclassified); **SPN (Synthetic preparation)**; BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(bis(2,4-diaminophenoxy)benzenes as couplers in oxidative hair dyes)
IT 70-34-8, 2,4-Dinitrofluorobenzene 108-46-3, 1,3-Benzenediol, reactions 120-80-9, 1,2-Benzenediol, reactions 608-25-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(bis(2,4-diaminophenoxy)benzenes as couplers in oxidative hair dyes)
IT 3761-11-3P 3761-13-5P 4434-10-0P
RL: RCT (Reactant); **SPN (Synthetic preparation)**; **PREP (Preparation)**; RACT (Reactant or reagent)

(bis(2,4-diaminophenoxy)benzenes as couplers in oxidative hair dyes)
IT 106-50-3, 1,4-Benzenediamine, biological studies 123-30-8D, p-Aminophenol, derivs. 7575-35-1, N,N-Bis(2-hydroxyethyl)-p-phenylenediamine
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(primary intermediate dye; bis(2,4-diaminophenoxy)benzenes as couplers in oxidative hair dyes)
IT **3085-95-8**
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(bis(2,4-diaminophenoxy)benzenes as couplers in oxidative hair dyes)
RN 3085-95-8 HCAPLUS
CN 1,3,5-Triazine-2,4,6-triamine, compd. with hydrogen peroxide (H2O2) (1:1) (9CI) (CA INDEX NAME)

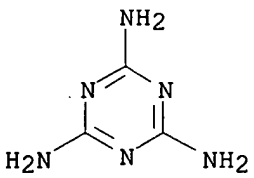
CM 1

CRN 7722-84-1
CMF H2 O2

HO—OH

CM 2

CRN 108-78-1
CMF C3 H6 N6



L70 ANSWER 19 OF 53 HCAPLUS COPYRIGHT 2003 ACS
AN 1999:12188 HCAPLUS
DN 130:71279
TI Oxidative hair dye compositions containing 1-(4-aminophenyl)pyrrolidines
IN Anderson, James S.; Wong, Michael Y. M.
PA USA
SO U.S., 12 pp.
CODEN: USXXAM
DT Patent
LA English
IC ICM A61K007-13
NCL 008409000
CC 62-3 (Essential Oils and **Cosmetics**)
Section cross-reference(s): 25
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

PI US 5851237 A 19981222 US 1997-892339 19970714
EP 891765 A2 19990120 EP 1998-202318 19980709
EP 891765 A3 20000105
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO
PRAI US 1997-892339 19970714
OS MARPAT 130:71279
AB Compns. and methods for the oxidative coloring of human hair contg. 1-(4-aminophenyl)pyrrolidines are provided. The compns. of the invention contain as a primary dye intermediate a 1-(4-aminophenyl) pyrrolidine, or a cosmetically acceptable salt thereof. The compns. may also contain at least one other primary intermediate and conventional coupling compds., in addn. to an oxidizing agent and other components typically used in oxidative hair dye prepns. Preferred dye intermediates in the compns. of the invention include 1-(4-aminophenyl) pyrrolidine and 1-(4-amino-3-methylphenyl) pyrrolidine, or cosmetically acceptable salts thereof, which produce intense neutral colors when used in admixt. with a suitable coupling agents, such as 3-aminophenol, in conventional hair dye base formulations. Thus, 378.8 g 1-(4-nitrophenyl)pyrrolidine (prepn. given), 12.0 g Darco KB carbon, and 10% palladium on carbon were suspended in 1300 mL ethanol and hydrogenated. The mixt. was then filtered, and the filtrate was stirred in an ice/acetone bath and a cold soln. of concd. H2SO4 (204 g) in 150 mL ethanol was added dropwise over 1 h. The resultant ppt. was filtered, washed, and dried to obtain 325 g of 1-(4-aminophenyl)pyrrolidine sulfate (I). A hair dye contained I 1.0, m-aminophenol 0.5, resorcinol 0.5, 1-naphthol 0.1, isopropanol 10, propylene glycol 15, oleic acid 14, nonoxynol-2 9, cocoamide DEA 1, ammonium hydroxide 10, sodium sulfite 0.1, and water q.s. 100%.
ST oxidative hair dye aminophenylpyrrolidine deriv
IT Hair preparations
(dyes, oxidative; oxidative hair dye compns. contg. aminophenylpyrrolidines)
IT Coupling agents
Oxidizing agents
(oxidative hair dye compns. contg. aminophenylpyrrolidines)
IT 90-15-3, 1-Naphthol 99-98-9 106-50-3D, 1,4-Benzenediamine, derivs., biological studies 108-45-2D, 1,3-Benzenediamine, derivs., biological studies 108-46-3, 1,3-Benzenediol, biological studies 108-46-3D, Resorcinol, derivs. 123-30-8D, p-Aminophenol, derivs. 124-43-6 563-69-9, Carbonoperoxoic acid 591-27-5, 3-Aminophenol 591-27-5D, derivs. 608-25-3 615-66-7 2835-95-2, 2-Hydroxy-4-aminotoluene 2835-99-6, 3-Methyl-4-aminophenol **3085-95-8**, Melamine peroxide 7469-77-4, 2-Methyl-1-naphthol 7722-84-1, Hydrogen peroxide (H2O2), biological studies 39349-73-0, **Perborate** 54381-16-7 70643-19-5, 2-(2,4-Diaminophenoxy)ethanol 93841-24-8
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(oxidative hair dye compns. contg. aminophenylpyrrolidines)
IT 218139-56-1P 218139-57-2P 218139-58-3P
RL: BUU (Biological use, unclassified); **SPN (Synthetic preparation)**; BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(oxidative hair dye compns. contg. aminophenylpyrrolidines)
IT 100-00-5, 4-Chloronitrobenzene 123-75-1, Pyrrolidine, reactions 5367-28-2, 5-Chloro-2-nitrotoluene
RL: RCT (Reactant); RACT (Reactant or reagent)
(oxidative hair dye compns. contg. aminophenylpyrrolidines)
IT 350-46-9P, 4-Fluoronitrobenzene 455-88-9P, 2-Fluoro-5-nitrotoluene

10220-22-1P, 1-(4-Nitrophenyl)pyrrolidine 218139-59-4P
RL: RCT (Reactant); **SPN (Synthetic preparation)**; **PREP (Preparation)**; RACT (Reactant or reagent)
(oxidative hair dye compns. contg. aminophenylpyrrolidines)
RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Ohki; US 5278034 1994 HCAPLUS
(2) Rennison; US 4131468 1978 HCAPLUS
IT **3085-95-8**, Melamine peroxide
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(oxidative hair dye compns. contg. aminophenylpyrrolidines)
RN 3085-95-8 HCAPLUS
CN 1,3,5-Triazine-2,4,6-triamine, compd. with hydrogen peroxide (H2O2) (1:1) (9CI) (CA INDEX NAME)

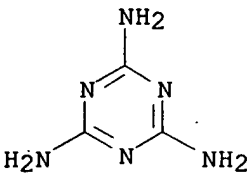
CM 1

CRN 7722-84-1
CMF H2 O2

HO—OH

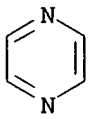
CM 2

CRN 108-78-1
CMF C3 H6 N6



L70 ANSWER 20 OF 53 HCAPLUS COPYRIGHT 2003 ACS
AN 1998:587487 HCAPLUS
DN 129:275848
TI Synthesis of alkoxypyrazines
AU Pustejovska, Martina; Madera, Jiri; Cerveny, Libor
CS Dep. Org. Technol., Inst. Chem. Technol., Prague, 166 28, Czech Rep.
SO Chemicke Listy (1998), 92(8), 622-625
CODEN: CHLSAC; ISSN: 0009-2770
PB Ceska Spolecnost Chemicka
DT Journal; General Review
LA Czech
CC 28-0 (Heterocyclic Compounds (More Than One Hetero Atom))
Section cross-reference(s): **62**
AB A review with 21 refs. including reaction of halopyrazines with alkoxides, chlorination of alkylpyrazine N-oxides, reaction of hydroxypyrazines with diazomethane, and reaction of 2,5-piperazinediones with trialkyloxonium **tetrafluoroborate**.

ST review alkoxypyrazine prepn; pyrazine alkoxy prepn review
IT **290-37-9DP**, Pyrazine, alkoxy derivs.
RL: **SPN (Synthetic preparation); PREP (Preparation)**
IT **290-37-9DP**, Pyrazine, alkoxy derivs.
RL: **SPN (Synthetic preparation); PREP (Preparation)**)
RN 290-37-9 HCAPLUS
CN Pyrazine (8CI, 9CI) (CA INDEX NAME)



L70 ANSWER 21 OF 53 HCAPLUS COPYRIGHT 2003 ACS
AN 1998:586776 HCAPLUS
DN 129:166068
TI Oxidative dye composition for keratin fibers and method for dyeing
IN Rondeau, Christine; Cotteret, Jean; De la Mettrie, Roland
PA L'Oreal S. A., Fr.
SO Fr. Demande, 50 pp.
CODEN: FRXXBL
DT Patent
LA French
IC ICM A61K007-13
CC 62-3 (Essential Oils and Cosmetics)
Section cross-reference(s): **41**
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 2757385	A1	19980626	FR 1996-15892	19961223
	FR 2757385	B1	19990129		
	EP 850636	A1	19980701	EP 1997-402834	19971125
	EP 850636	B1	19990506		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	AT 179592	E	19990515	AT 1997-402834	19971125
	ES 2134055	T3	19990916	ES 1997-402834	19971125
	AU 9747629	A1	19980625	AU 1997-47629	19971209
	AU 694398	B2	19980716		
	ZA 9711240	A	19980623	ZA 1997-11240	19971215
	BR 9706295	A	19990504	BR 1997-6295	19971218
	US 5919273	A	19990706	US 1997-994127	19971219
	CA 2223726	AA	19980623	CA 1997-2223726	19971222
	JP 10182378	A2	19980707	JP 1997-353833	19971222
	JP 2968243	B2	19991025		
	CN 1189332	A	19980805	CN 1997-120861	19971222
	RU 2160086	C2	20001210	RU 1997-122261	19971222
PRAI	FR 1996-15892	A	19961223		

OS MARPAT 129:166068
AB Oxidative dye compns. for keratin fibers, esp. for human **hair**, comprise .gtoreq.1 oxidn. base, .gtoreq.1 coupler based on m-aminophenol derivs., .gtoreq.1 cationic direct dye contg. an azo, ethylenic or CH:N linkage and a cationic nitrogen-contg. ring, and .gtoreq.1 oxidizing agent. A method for dyeing and a kit for packaging the **hair** dye are claimed. The oxidative dye compn. enables rich coloration with good

shine and durability. Thus, a dye compn. was prepd. contg. oxidn. bases p-toluylenediamine and p-aminophenol, 5-N-(.beta.-hydroxyethyl)amino-2-methylphenol as coupler, and 4-[(1,3-dimethylimidazolium-2-yl)azo]-N,N-dimethylaniline chloride as cationic direct dye. At time of use, the dye compn. was combined with a hydrogen peroxide soln. Natural gray **hair** was dyed with the above compn. by applying the compn. for 30 and min and then rinsing and shampooing. The dyed **hair** was a deep blond with intense red highlights.

ST oxidative **hair** dye compn; cationic direct dye oxidative **hair** dye

IT Azo dyes
Azo dyes
(cationic; oxidative dye compn. providing good color and durability for keratin fibers, esp. **hair**)

IT **Hair** preparations
(dyes, oxidative; oxidative dye compn. providing good color and durability for keratin fibers, esp. **hair**)

IT Keratins
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(fibers; oxidative dye compn. providing good color and durability for keratin fibers, esp. **hair**)

IT Peroxysulfates
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(oxidizing agent; oxidative dye compn. providing good color and durability for keratin fibers, esp. **hair**)

IT Group IIIA element compounds
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(**perborates**, oxidizing agent; oxidative dye compn. providing good color and durability for keratin fibers, esp. **hair**)

IT 6687-56-5 39838-87-4 62163-15-9 73447-48-0 75655-00-4 77061-58-6 89923-52-4 97404-02-9 109220-25-9 143084-49-5 160598-04-9 161328-96-7 161328-99-0 161329-01-7 161329-04-0 161329-05-1 161329-06-2 161329-07-3 161329-08-4 161329-09-5 161329-23-3 161329-25-5 161329-26-6 161329-27-7 161329-28-8 161329-29-9 161329-30-2 161329-31-3 161329-43-7 161329-44-8 161329-45-9 167382-79-8 167382-80-1 167382-83-4 167382-87-8 167382-88-9 167382-95-8 167382-96-9 167382-97-0 167382-98-1 167382-99-2 178822-03-2 178822-05-4
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(cationic direct dye; oxidative dye compn. providing good color and durability for keratin fibers, esp. **hair**)

IT 591-27-5D, m-Aminophenol, derivs. 1687-53-2, 5-Amino-2-methoxyphenol 2835-95-2, 5-Amino-2-methylphenol 55302-96-0, 5-N-(.beta.-Hydroxyethyl)amino-2-methylphenol 86817-42-7, 5-Amino-2-(.beta.-hydroxyethoxy)phenol 110102-86-8, 5-Amino-4-chloro-2-methylphenol 114109-54-5, 5-Amino-2,4-dimethoxyphenol 137290-78-9, 5-Amino-4-methoxy-2-methylphenol 137290-86-9, 5-N-(.beta.-Hydroxyethyl)amino-4-methoxy-2-methylphenol 146658-65-3, 5-(.gamma.-Hydroxypropylamino)-2-methylphenol
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(coupler; oxidative dye compn. providing good color and durability for keratin fibers, esp. **hair**)

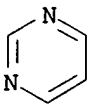
IT 124-43-6 7722-84-1, Hydrogen peroxide, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES

(Uses)
(oxidizing agent; oxidative dye compn. providing good color and durability for keratin fibers, esp. **hair**)

IT 92-65-9 93-05-0, N,N-Diethyl-p-phenylenediamine 95-55-6, 2-Aminophenol 95-70-5 99-98-9, N,N-Dimethyl-p-phenylenediamine 101-54-2, N-Phenyl-p-phenylenediamine 106-50-3, 1,4-Benzenediamine, biological studies 106-50-3D, 1,4-Benzenediamine, derivs., biological studies 110-86-1D, Pyridine, derivs., biological studies 123-30-8 148-71-0, 4-Amino-N,N-diethyl-3-methylaniline 288-13-1D, Pyrazole, derivs. **289-95-2D**, Pyrimidine, derivs. 399-95-1, 4-Amino-3-fluorophenol 399-96-2, 4-Amino-2-fluorophenol 537-65-5 615-66-7, 2-Chloro-p-phenylenediamine 1630-11-1, 2,6-Diethyl-p-phenylenediamine 2359-52-6 2359-53-7 2835-96-3, 4-Amino-2-methylphenol 2835-98-5, 2-Amino-5-methylphenol 2835-99-6, 4-Amino-3-methylphenol 5306-96-7, 2,3-Dimethyl-p-phenylenediamine 5862-80-6 6393-01-7 7218-02-2, 2,6-Dimethyl-p-phenylenediamine 7575-35-1, N,N-Bis(.beta.-hydroxyethyl)-p-phenylenediamine 14791-78-7, 2-Fluoro-p-phenylenediamine 17672-22-9, 2-Amino-6-methylphenol 29785-47-5, 4-Amino-2-methoxymethylphenol 63969-43-7 73793-80-3, 2-Hydroxymethyl-p-phenylenediamine 79352-72-0 80467-77-2 93841-24-8, 2-.beta.-Hydroxyethyl-p-phenylenediamine 97902-52-8, 2-Isopropyl-p-phenylenediamine 104333-09-7 105293-89-8, N,N-Dipropyl-p-phenylenediamine 105607-68-9, 4-Amino-3-chloro-N,N-Bis(.beta.-hydroxyethyl)aniline 110952-46-0 126335-43-1, 2-.beta.-Hydroxyethoxy-p-phenylenediamine 128729-30-6 128729-31-7 129697-50-3 130582-53-5 135855-34-4 135855-35-5 168202-61-7 207568-58-9
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(oxidn. base; oxidative dye compn. providing good color and durability for keratin fibers, esp. **hair**)

IT **289-95-2D**, Pyrimidine, derivs.
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(oxidn. base; oxidative dye compn. providing good color and durability for keratin fibers, esp. **hair**)

RN 289-95-2 HCAPLUS
CN Pyrimidine (8CI, 9CI) (CA INDEX NAME)



L70 ANSWER 22 OF 53 HCAPLUS COPYRIGHT 2003 ACS
AN 1998:577128 HCAPLUS
DN 129:166070
TI Oxidative dye compositions containing cationic direct colorants for keratin fibers and dyeing method
IN Rondeau, Christine; Cotteret, Jean; De la Mettrie, Roland
PA L'Oreal S. A., Fr.
SO Fr. Demande, 69 pp.
CODEN: FRXXBL
DT Patent
LA French
IC ICM A61K007-13

CC 62-3 (Essential Oils and Cosmetics)
Section cross-reference(s): **41**

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 2757388	A1	19980626	FR 1996-15895	19961223
	FR 2757388	B1	19991112		
	EP 850638	A1	19980701	EP 1997-402863	19971127
	EP 850638	B1	19990901		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	AT 183917	E	19990915	AT 1997-402863	19971127
	ES 2138855	T3	20000116	ES 1997-402863	19971127
	AU 693751	B1	19980702	AU 1997-47631	19971209
	ZA 9711309	A	19980623	ZA 1997-11309	19971217
	US 6001135	A	19991214	US 1997-994444	19971219
	CA 2222852	AA	19980623	CA 1997-2222852	19971222
	JP 10182379	A2	19980707	JP 1997-353836	19971222
	JP 2974645	B2	19991110		
	RU 2160085	C2	20001210	RU 1997-121289	19971222
	BR 9706323	A	19990504	BR 1997-6323	19971223
PRAI	FR 1996-15895	A	19961223		

OS MARPAT 129:166070

AB The title oxidative dye compns., esp. for dyeing **hair**, contain .gtoreq.1 oxidn. base, .gtoreq.1 cationic direct colorant based on substituted nitrogen-contg. cationic heterocycle derivs. having N=N, CH=CH or N=CH linkages, and .gtoreq.1 oxidizing agent. The dye compns. enable formation of a wide range of colors and provide rich coloration with good shine and durability. Thus, an oxidative dye compn. was formulated from p-phenylenediamine and 4-(1,3-dimethylimidazolium-2-ylazo)-N,N-dimethylaniline chloride. During application, the dye compn. was mixed with hydrogen peroxide as oxidizing agent. The compn. was applied 30 min to naturally gray **hair** and then rinsed and shampooed off. The treated **hair** had an intense red nuance which was resistant to subsequent shampooing.

ST oxidative **hair** dye cationic direct colorant; keratin fiber oxidative dye compn

IT Azo dyes
Azo dyes
(cationic; oxidative **hair** dye compns. contg. cationic direct colorants with good coloration, shine, and shampoo resistance)

IT **Hair** preparations
(dyes, oxidative; oxidative **hair** dye compns. contg. cationic direct colorants with good coloration, shine, and shampoo resistance)

IT Keratins
RL: MSC (Miscellaneous)
(fibers; oxidative **hair** dye compns. contg. cationic direct colorants with good coloration, shine, and shampoo resistance)

IT Peroxysulfates
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(oxidizing agent; oxidative **hair** dye compns. contg. cationic direct colorants with good coloration, shine, and shampoo resistance)

IT Group IIIA element compounds
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(**perborates**, oxidizing agent; oxidative **hair** dye compns. contg. cationic direct colorants with good coloration, shine,

and shampoo resistance)

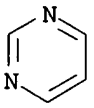
IT 6687-56-5 39838-87-4 42476-20-0 54940-81-7 62163-15-9 64651-39-4
68259-00-7 68912-02-7 73287-60-2 73447-48-0 75655-00-4
77061-58-6 83950-26-9 84912-24-3 89923-52-4 92888-19-2
93940-65-9 97404-02-9 97406-09-2 109220-25-9 143084-49-5
160598-04-9 161328-83-2 161328-85-4 161328-86-5 161328-87-6
161328-89-8 161328-91-2 161328-92-3 161328-94-5 161328-95-6
161328-96-7 161328-99-0 161329-01-7 161329-02-8 161329-04-0
161329-05-1 161329-06-2 161329-07-3 161329-08-4 161329-09-5
161329-16-4 161329-22-2 161329-23-3 161329-25-5 161329-26-6
161329-27-7 161328-28-8 161329-29-9 161329-30-2 161329-31-3
161329-39-1 161329-42-6 161329-43-7 161329-44-8 161329-45-9
161329-47-1 167382-76-5 167382-77-6 167382-78-7 167382-79-8
167382-80-1 167382-82-3 167382-83-4 167382-87-8 167382-88-9
167382-95-8 167382-96-9 167382-97-0 167382-98-1 167382-99-2
178822-03-2 178822-05-4 211050-60-1 211050-61-2
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(cationic direct colorant; oxidative **hair** dye compns. contg. cationic direct colorants with good coloration, shine, and shampoo resistance)

IT 124-43-6 7722-84-1, Hydrogen peroxide, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(oxidizing agent; oxidative **hair** dye compns. contg. cationic direct colorants with good coloration, shine, and shampoo resistance)

IT 92-00-2 92-65-9 93-05-0, N,N-Diethyl-p-phenylenediamine 95-55-6, 2-Aminophenol 95-70-5 99-98-9, N,N-Dimethyl-p-phenylenediamine 101-54-2, N-Phenyl-p-phenylenediamine 106-50-3, 1,4-Benzenediamine, biological studies 110-86-1D, Pyridine, derivs., biological studies 123-30-8 148-71-0, 4-Amino-N,N-diethyl-3-methylaniline 288-13-1D, Pyrazole, derivs. **289-95-2D**, Pyrimidine, derivs. 399-95-1, 4-Amino-3-fluorophenol 399-96-2, 4-Amino-2-fluorophenol 537-65-5 615-66-7, 2-Chloro-p-phenylenediamine 1630-11-1, 2,6-Diethyl-p-phenylenediamine 2359-52-6 2359-53-7 2835-96-3, 4-Amino-2-methylphenol 2835-98-5, 2-Amino-5-methylphenol 2835-99-6, 4-Amino-3-methylphenol 5306-96-7 5862-80-6 6393-01-7 7218-02-2, 2,6-Dimethyl-p-phenylenediamine 7575-35-1 14791-78-7 17672-22-9, 2-Amino-6-methylphenol 29785-47-5, 4-Amino-2-methoxymethylphenol 63969-43-7 73793-80-3, 2-Hydroxymethyl-p-phenylenediamine 79352-72-0 80467-77-2 93841-24-8 97902-52-8, 2-Isopropyl-p-phenylenediamine 104333-09-7 105293-89-8, N,N-Dipropyl-p-phenylenediamine 110952-46-0 126335-43-1, 2-.beta.-Hydroxyethoxy-p-phenylenediamine 128729-30-6 128729-31-7 129697-50-3 130582-53-5 135855-34-4 135855-35-5 168202-61-7 207568-58-9
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(oxidn. base; oxidative **hair** dye compns. contg. cationic direct colorants with good coloration, shine, and shampoo resistance)

IT **289-95-2D**, Pyrimidine, derivs.
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(oxidn. base; oxidative **hair** dye compns. contg. cationic direct colorants with good coloration, shine, and shampoo resistance)

RN 289-95-2 HCAPLUS
CN Pyrimidine (8CI, 9CI) (CA INDEX NAME)



L70 ANSWER 23 OF 53 HCAPLUS COPYRIGHT 2003 ACS
AN 1998:207280 HCAPLUS
DN 128:275101
TI Gas and gaseous precursor filled microspheres as topical and subcutaneous delivery vehicles
IN Unger, Evan C.; Matsunaga, Terry O.; Yellowhair, David
PA Imarx Pharmaceutical Corp., USA
SO U.S., 40 pp., Cont.-in-part of U.S. Ser. No. 307,305.
CODEN: USXXAM
DT Patent
LA English
IC ICM A61K009-127
NCL 424450000
CC 63-6 (Pharmaceuticals)
Section cross-reference(s): **62**
FAN.CNT 19

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5733572	A	19980331	US 1994-346426	19941129
	US 5088499	A	19920218	US 1990-569828	19900820
	WO 9109629	A1	19910711	WO 1990-US7500	19901219
	W: CA, JP				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE				
	AT 180170	E	19990615	AT 1991-902857	19901219
	ES 2131051	T3	19990716	ES 1991-902857	19901219
	JP 3309356	B2	20020729	JP 1991-503276	19901219
	JP 05502675	T2	19930513		
	US 5228446	A	19930720	US 1991-717084	19910618
	WO 9222247	A1	19921223	WO 1992-US2615	19920331
	W: AU, CA, JP				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE				
	AU 9220020	A1	19930112	AU 1992-20020	19920331
	AU 667471	B2	19960328		
	JP 06508364	T2	19940922	JP 1993-500847	19920331
	EP 616508	A1	19940928	EP 1992-912456	19920331
	EP 616508	B1	20010718		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, MC, NL, SE				
	EP 660687	A1	19950705	EP 1992-912455	19920331
	EP 660687	B1	19981028		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, MC, NL, SE				
	AT 172625	E	19981115	AT 1992-912455	19920331
	ES 2124733	T3	19990216	ES 1992-912455	19920331
	JP 3053217	B2	20000619	JP 1992-500845	19920331
	AT 203148	E	20010815	AT 1992-912456	19920331
	ES 2159280	T3	20011001	ES 1992-912456	19920331
	US 5469854	A	19951128	US 1993-76239	19930611
	US 5580575	A	19961203	US 1993-76250	19930611
	US 5348016	A	19940920	US 1993-88268	19930707
	US 5542935	A	19960806	US 1993-160232	19931130
	US 5585112	A	19961217	US 1993-159687	19931130
	US 5769080	A	19980623	US 1994-199462	19940222

	WO 9428874	A1	19941222	WO 1994-US5633	19940519
	W: AU, CA, CN, JP				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 5773024	A	19980630	US 1994-307305	19940916
	CA 2177713	AA	19950608	CA 1994-2177713	19941130
	WO 9515118	A1	19950608	WO 1994-US13817	19941130
	W: AU, CA, CN, JP				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	JP 09506098	T2	19970617	JP 1995-515763	19941130
	EP 740528	B1	20030326	EP 1995-908414	19941130
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
	US 5571497	A	19961105	US 1995-468056	19950606
	CN 1180310	A	19980429	CN 1996-193069	19960327
	CN 1102045	B	20030226		
	US 6001335	A	19991214	US 1996-665719	19960618
	US 5935553	A	19990810	US 1996-758179	19961125
	US 5985246	A	19991116	US 1997-888426	19970708
	AU 9856271	A1	19980507	AU 1998-56271	19980224
	AU 713127	B2	19991125		
	AU 9888405	A1	19981203	AU 1998-88405	19981012
	AU 731072	B2	20010322		
	HK 1013625	A1	20000420	HK 1998-114978	19981223
	AU 9910043	A1	19990304	AU 1999-10043	19990104
PRAI	US 1989-455707	B2	19891222		
	US 1990-569828	A2	19900820		
	US 1991-716899	B2	19910618		
	US 1991-717084	A2	19910618		
	US 1993-76239	A2	19930611		
	US 1993-76250	A2	19930611		
	US 1993-159674	B2	19931130		
	US 1993-159687	A2	19931130		
	US 1993-160232	A2	19931130		
	US 1994-307305	A2	19940916		
	WO 1990-US7500	W	19901219		
	US 1991-716793	A	19910618		
	US 1991-750877	A3	19910826		
	US 1992-818069	A3	19920108		
	WO 1992-US2610	W	19920331		
	WO 1992-US2615	A	19920331		
	US 1992-967974	A3	19921027		
	US 1993-17683	A3	19930212		
	US 1993-18112	B3	19930217		
	US 1993-85608	A3	19930630		
	US 1993-88268	A3	19930707		
	US 1993-163039	A3	19931206		
	US 1994-212553	B2	19940311		
	AU 1994-70416	A3	19940519		
	US 1994-346426	A	19941129		
	AU 1995-21850	A3	19941130		
	WO 1994-US13817	W	19941130		
	US 1995-395683	A3	19950228		
	US 1995-468056	A3	19950606		
	US 1995-471250	A3	19950606		
	US 1996-665719	A3	19960618		

AB Gas and gaseous precursor filled microspheres, and foams provide novel topical and s.c. delivery vehicles for various active ingredients, including drugs and cosmetics. Gas and gaseous precursor filled microcapsules were prepd. from dipalmitoylphosphatidylcholine.

ST microcapsule gas filled; topical microcapsule gas filled; subcutaneous microcapsule gas filled

IT Carbohydrates, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(acidic; gas and gaseous precursor filled microspheres as topical and s.c. delivery vehicles)

IT Quaternary ammonium compounds, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(alkylbenzyldimethyl, chlorides; gas and gaseous precursor filled microspheres as topical and s.c. delivery vehicles)

IT Peptides, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antisense; gas and gaseous precursor filled microspheres as topical and s.c. delivery vehicles)

IT Diglycerides
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(digalactosyl; gas and gaseous precursor filled microspheres as topical and s.c. delivery vehicles)

IT Alditols
Sterols
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(esters; gas and gaseous precursor filled microspheres as topical and s.c. delivery vehicles)

IT Hydrocarbons, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(fluoro; gas and gaseous precursor filled microspheres as topical and s.c. delivery vehicles)

IT Acacia
Alcohols, biological studies
Alkanes, biological studies
Allergy inhibitors
Amines, biological studies
Anthocyanins
Anti-inflammatory agents
Antibacterial agents
Antibiotics
Anticoagulants
Antioxidants
Antisense oligonucleotides
Antiviral agents
Bentonite, biological studies
Buffers
Canola oil
Carbohydrates, biological studies
Cardiovascular agents
Chelating agents
Collagens, biological studies
Coloring materials
Corn oil
Cosmetics
DNA
Diuretics
Dystrophin
Elastins
Enkephalins
Enzymes, biological studies
Essential oils
Esters, biological studies

Fatty acids, biological studies
Fluoropolymers, biological studies
Foaming agents
Fungicides
Gases
Gene, animal
Glycolipids
Glycols, biological studies
Growth factors, animal
Hormones, animal, biological studies
Immunosuppressants
Lipids, biological studies
Micelles
Olive oil
Peanut oil
Peptides, biological studies
Perfluorocarbons
Petrolatum
Phosphatidic acids
Phosphatidylcholines, biological studies
Phosphatidylethanolamines, biological studies
Phosphatidylglycerols
Phosphatidylinositols
Phosphatidylserines
Phospholipids, biological studies
Polyamides, biological studies
Polyesters, biological studies
Polyolefins
Polyoxyalkylenes, biological studies
Polysaccharides, biological studies
Polyurethanes, biological studies
Preservatives
Protozoacides
Quaternary ammonium compounds, biological studies
Radionuclides, biological studies
Safflower oil
Sphingolipids
Sulfatides
Sulfoxides
Terpenes, biological studies
Tocopherols
Tuberculostatics
Vitamins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(gas and gaseous precursor filled microspheres as topical and s.c. delivery vehicles)

IT Interleukin 2
Interleukin 4
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(genes, DNA encoding; gas and gaseous precursor filled microspheres as topical and s.c. delivery vehicles)

IT Anesthetics
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(local; gas and gaseous precursor filled microspheres as topical and s.c. delivery vehicles)

IT Drug delivery systems
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(microcapsules; gas and gaseous precursor filled microspheres as

topical and s.c. delivery vehicles)

IT Encapsulation
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(microencapsulation; gas and gaseous precursor filled microspheres as topical and s.c. delivery vehicles)

IT Antibodies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(monoclonal; gas and gaseous precursor filled microspheres as topical and s.c. delivery vehicles)

IT Drug delivery systems
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(ointments; gas and gaseous precursor filled microspheres as topical and s.c. delivery vehicles)

IT Uronic acids
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polyuronic acids; gas and gaseous precursor filled microspheres as topical and s.c. delivery vehicles)

IT Carbohydrates, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(sugar esters; gas and gaseous precursor filled microspheres as topical and s.c. delivery vehicles)

IT 50-02-2, Dexamethasone 50-03-3, Hydrocortisone acetate 50-04-4, Cortisone acetate 50-23-7, Hydrocortisone 50-24-8 50-33-9, Phenylbutazone, biological studies 50-56-6, Oxytocin, biological studies 50-70-4, Sorbitol, biological studies 50-78-2, Aspirin 50-81-7, Ascorbic acid, biological studies 51-05-8, Procaine hydrochloride 51-34-3, Scopolamine 52-21-1 52-67-5, Penicillamine 53-03-2, Prednisone 53-36-1, Methylprednisolone acetate 53-86-1, Indomethacin 54-05-7, Chloroquine 54-11-5, Nicotine 54-85-3, Isoniazid 56-75-7, Chloramphenicol 56-81-5, 1,2,3-Propanetriol, biological studies 57-09-0, Cetyltrimethylammonium bromide 57-11-4, Octadecanoic acid, biological studies 57-13-6, Urea, biological studies 57-15-8, Chlorobutanol 57-55-6, 1,2-Propanediol, biological studies 57-88-5, Cholesterol, biological studies 58-08-2, Caffeine, biological studies 59-02-9, .alpha.-Tocopherol 60-00-4, Edta, biological studies 60-54-8, Tetracycline 61-32-5, Methicillin 61-33-6, Penicillin g, biological studies 61-68-7, Mefenamic acid 64-17-5, Ethanol, biological studies 65-49-6, p-Aminosalicylic acid 65-85-0, Benzoic acid, biological studies 66-79-5, Oxacillin 67-43-6, DTPA 67-56-1, Methanol, biological studies 67-68-5, Dmso, biological studies 67-78-7, Triamcinolone diacetate 68-19-9D, Cyanocobalamin, derivs. 68-41-7, Cycloserine 69-53-4, Ampicillin 69-72-7, Salicylic acid, biological studies 73-78-9, Lidocaine hydrochloride 74-88-4, Iodomethane, biological studies 74-98-6, Propane, biological studies 75-00-3, Chloroethane 75-10-5, Difluoromethane 75-18-3, Methyl sulfide 75-19-4, Cyclopropane 75-28-5, Isobutane 75-29-6, 2-Chloropropane 75-31-0, 2-Aminopropane, biological studies 75-34-3, 1,1-Dichloroethane 75-43-4, Dichlorofluoromethane 75-45-6, Chlorodifluoromethane 75-46-7, Trifluoromethane 75-56-9, biological studies 75-61-6, Dibromodifluoromethane 75-63-8, Bromotrifluoromethane 75-69-4, Trichlorofluoromethane 75-71-8, Dichlorodifluoromethane 75-72-9, Chlorotrifluoromethane 75-73-0, Tetrafluoromethane 76-13-1, 1,1,2-Trichloro-1,2,2-trifluoroethane 76-15-3, 1-Chloro-1,1,2,2,2-pentafluoroethane 76-16-4, Hexafluoroethane 76-19-7, Perfluoropropane 76-25-5, Triamcinolone acetonide 77-92-9, Citric acid, biological studies 78-78-4, 2-Methylbutane 78-79-5, biological studies 78-80-8 79-81-2, Retinol palmitate 80-08-0 83-43-2, Methylprednisolone 87-08-1, Penicillin v 87-73-0, Saccharic acid 93-60-7, Methyl

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RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(gas and gaseous precursor filled microspheres as topical and s.c. delivery vehicles)

IT 927-84-4, Trifluoromethyl peroxide 928-45-0, Butyl nitrate 929-59-9 931-91-9, Hexafluorocyclopropane 987-24-6, Betamethasone acetate 1070-11-7, Ethambutol hydrochloride 1119-94-4, Lauryltrimethylammonium bromide 1119-97-7, Myristyltrimethylammonium bromide 1177-87-3, Dexamethasone acetate 1180-43-4, Cholesterol isobutyrate 1191-96-4, Ethylcyclopropane 1256-86-6, Cholesterol sulfate 1314-13-2, Zinc oxide, biological studies 1321-10-4, Chlorocresol 1323-39-3, Propylene glycol monostearate 1323-83-7, Glycerol distearate 1327-43-1, Magnesium aluminum silicate 1338-39-2, Sorbitan monolaurate 1338-41-6, Sorbitan monostearate 1338-43-8, Sorbitan monooleate 1344-95-2, Calcium silicate 1397-89-3, Amphotericin b 1398-61-4, Chitin 1400-61-9, Nystatin 1404-04-2, Neomycin 1405-37-4, Capreomycin sulfate 1406-16-2, Vitamin d 1406-18-4, Vitamin e 1493-03-4, Difluoroiodomethane 1597-82-6, Paramethasone acetate 1630-94-0, 1,1-Dimethylcyclopropane 1722-62-9, Mepivacaine hydrochloride 1759-88-2 1842-05-3, 1,1-Dichloro-1,2-difluoroethane **2022-85-7**, Flucytosine 2314-97-8, Iodotrifluoromethane 2366-52-1, 1-Fluorobutane 2375-03-3, Methylprednisolone sodium succinate 2392-39-4, Dexamethasone sodium phosphate 2462-63-7, Dioleoylphosphatidylethanolamine 2511-95-7, 1,2-Dimethyl-cyclopropane 2551-62-4, Sulfur hexafluoride 2644-64-6, Dipalmitoylphosphatidylcholine 2671-68-3, Lanosterol acetate **2809-21-4**, Etidronic acid 3116-76-5, Dicloxacillin 3385-03-3, Flunisolide 3485-14-1, Cyclacillin 3511-16-8, Hetacillin 3529-04-2, Benzyldimethyl hexadecylammonium bromide 3810-74-0, Streptomycin sulfate 3858-89-7, Chloroprocaine hydrochloride 3992-98-1, Ergosterol palmitate 4539-70-2, Distearoylphosphatidylcholine 4697-36-3, Carbenicillin 4786-20-3, Crotononitrile 4901-75-1, 3-Ethyl-3-methyldiaziridine 5534-09-8, Beclomethasone dipropionate 5536-17-4, Vidarabine 5611-51-8, Triamcinolone hexacetonide 5714-22-7, Sulfur fluoride (S2F10) 6000-74-4, Hydrocortisone sodium phosphate 6556-12-3, Glucuronic acid 7047-84-9, Aluminum monostearate 7235-40-7, Beta carotene 7281-04-1, Benzyldimethyldodecylammonium bromide 7440-01-9, Neon, biological studies 7440-15-5, Rhenium, biological studies 7440-24-6, Strontium, biological studies 7440-37-1, Argon, biological studies 7440-59-7, Helium, biological studies 7440-63-3, Xenon, biological studies 7440-65-5, Yttrium, biological studies 7553-56-2, Iodine, biological studies 7631-86-9, Silicon dioxide, biological studies 7637-07-2, Boron trifluoride, biological studies 7681-14-3, Prednisolone tebutate 7727-37-9, Nitrogen, biological studies 7732-18-5, Water, biological studies 7782-41-4, Fluorine, biological studies 7782-44-7, Oxygen,

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RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(gas and gaseous precursor filled microspheres as topical and s.c. delivery vehicles)

IT 132172-61-3 161293-59-0 161441-83-4 172261-50-6 172261-51-7 172261-52-8 172261-53-9 172261-54-0 172261-55-1 172261-56-2 172261-57-3 172261-58-4 173855-10-2 186198-32-3 205645-72-3
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(gas and gaseous precursor filled microspheres as topical and s.c. delivery vehicles)

IT 9002-79-3, Melanocyte stimulating hormone
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(genes, DNA encoding; gas and gaseous precursor filled microspheres as topical and s.c. delivery vehicles)

IT 9054-89-1
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(manganese-dependent; gas and gaseous precursor filled microspheres as topical and s.c. delivery vehicles)

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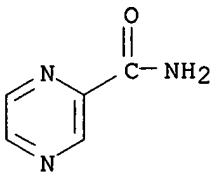
IT **98-96-4**, Pyrazinamide
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(gas and gaseous precursor filled microspheres as topical and s.c. delivery vehicles)
RN 98-96-4 HCAPLUS
CN Pyrazinecarboxamide (8CI, 9CI) (CA INDEX NAME)



L70 ANSWER 24 OF 53 HCAPLUS COPYRIGHT 2003 ACS
AN 1998:123988 HCAPLUS
DN 128:196477
TI Nail strengthening compositions containing permeation/binding agent, thio crosslinking agent, and chelating agent
IN Wolf, Barbara A.; Radice, William J.; Moaddel, Teanoosh; Ferone, James J.
PA Revlon Consumer Products Corporation, USA
SO PCT Int. Appl., 22 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61K007-00
ICS A61K007-04; A61K007-043
CC 62-4 (Essential Oils and **Cosmetics**)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9806376	A1	19980219	WO 1997-US14329	19970814
	W: AU, CA, JP				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 5785959	A	19980728	US 1996-698585	19960816
	AU 9740674	A1	19980306	AU 1997-40674	19970814
	ZA 9707362	A	19980219	ZA 1997-7362	19970815
	US 5925366	A	19990720	US 1998-84612	19980526
PRAI	US 1996-698585	A	19960816		
	WO 1997-US14329	W	19970814		

AB A nail strengthening compn. comprising, by wt. of the total compn. (a) 0.1-60 % by wt. of a permeation/binding agent, (b) 0.001-20 % of a thio crosslinking agent, and (c) 0.001-20 % of a chelating agent. A nail strengthening compns. contained nitrocellulose 17.7, Bu acetate 27.2, Et acetate 27.0, iso-Pr alc. 8.0, glyceryl tribenzoate 13.1, linoleic acid 4.8, 10% soln. phytic acid 0.1, thiooctic acid 0.1, stearalkonium bentonite 1.0, and 2,5-dibutylphenyl-3,5-di-tert-butyl-4-hydroxy benzoate 1.0%.
ST nail strengthening compn permeation binding agent; crosslinking agent chelating agent nail strengthening
IT Permeation
(agents for; nail strengthening compns. contg. permeation/binding agent, thio crosslinking agent, and chelating agent)

IT Amides, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(alkoxy-; nail strengthening compns. contg. permeation/binding agent, thio crosslinking agent, and chelating agent)

IT Cosmetics
(nail lacquers; nail strengthening compns. contg. permeation/binding agent, thio crosslinking agent, and chelating agent)

IT Binders
Chelating agents
Crosslinking agents
Emulsifying agents
Humectants
(nail strengthening compns. contg. permeation/binding agent, thio crosslinking agent, and chelating agent)

IT Amines, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(polyamines, nonpolymeric; nail strengthening compns. contg. permeation/binding agent, thio crosslinking agent, and chelating agent)

IT Polyphosphoric acids
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(sodium salts; nail strengthening compns. contg. permeation/binding agent, thio crosslinking agent, and chelating agent)

IT Jojoba oil
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(sulfurized; nail strengthening compns. contg. permeation/binding agent, thio crosslinking agent, and chelating agent)

IT 52-90-4, Cysteine, biological studies 56-89-3, Cystine, biological studies 58-85-5, Biotin 60-00-4, Edta, biological studies 62-33-9, Calcium disodium EDTA 63-68-3, Methionine, biological studies 64-02-8, Tetrasodium EDTA 65-82-7D, Acetylmethionine, silver complex **67-03-8**, Thiamine hydrochloride 67-42-5, EGTA 67-43-6, Pentetic acid 67-71-0, Dimethyl sulfone 68-11-1, Thioglycolic acid, biological studies 70-18-8, Glutathione, biological studies 71-44-3, Spermine 83-86-3, Phytic acid 96-27-5, Thioglycerin 97-24-5 103-04-8, Phenylthioglycolic acid 123-28-4, Dilauryl thiodipropionate 123-93-3, Thiodiglycolic acid 126-97-6, Ethanolamine thioglycolate 132-65-0, Dibenzothiophene 139-33-3, Disodium EDTA 139-41-3 139-89-9, Trisodium HEDTA 140-01-2, Pentasodium pentetate 140-07-8 147-93-3, Thiosalicylic acid 150-38-9, Trisodium EDTA 150-39-0, Hedta 156-57-0, Cysteamine hydrochloride 367-51-1, Sodium thioglycolate 482-54-2, Cyclohexanediamine tetraacetic acid 496-65-1, Pantetheine 505-73-7, Dithiodiglycolic acid 527-07-1, Sodiumgluconate **532-43-4**, Thiamine nitrate 638-23-3, Carbocysteine 693-36-7, Distearyl thiodipropionate 814-71-1, Calcium thioglycolate 1077-28-7, Thioctic acid 2001-94-7, Dipotassium EDTA 2235-43-0 **2809-21-4**, Etidronic acid 3012-65-5, Diammonium citrate 3287-12-5, Dicetyl thiodipropionate 3696-28-4 3794-83-0, Tetrasodium etidronate 5064-31-3, Trisodium NTA 5261-23-4, Tetrahydroxypropyl ethylenediamine 5421-46-5, Ammonium thioglycolate 6419-19-8, Aminotrimethylene phosphonic acid 6834-92-0, Sodium metasilicate 7320-34-5, Tetrapotassium pyrophosphate 7440-22-4D, Silver, acetylmethionine complex, biological studies 7601-54-9, Trisodium phosphate 7722-88-5, Tetrasodium pyrophosphate 7758-16-9, Disodium pyrophosphate 7758-29-4, Pentasodium triphosphate 10361-03-2, Sodiummetaphosphate 10595-72-9

12619-70-4, Cyclodextrin 12619-70-4D, Cyclodextrin, Me ethers
13081-34-0 13419-67-5 13845-36-8, Pentapotassium triphosphate
14618-65-6, Thiodiglycolamide 14974-53-9, Glyceryl thioglycolate
15534-95-9, Dimethylol ethylene thiourea 15922-78-8, Sodium pyrithione
16545-54-3, Dimyristyl thiodipropionate 16816-67-4, Pantethine
17572-97-3, TripotassiumEDTA 17627-10-0 20824-56-0, Diammonium EDTA
25103-09-7, Isooctyl thioglycolate 30232-12-3, Mercaptopropionic acid
31694-55-0D, phosphate, sodium salts 34452-51-2, Potassium thioglycolate
41760-23-0, Dicapryloyl cystine 57601-56-6 59219-69-1 60752-63-8
66558-66-5 68223-93-8, Diammonium dithiodiglycolate 86827-92-1
102868-96-2 105883-48-5 105883-51-0 105883-52-1 126094-21-1
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(nail strengthening compns. contg. permeation/binding agent, thio crosslinking agent, and chelating agent)

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD

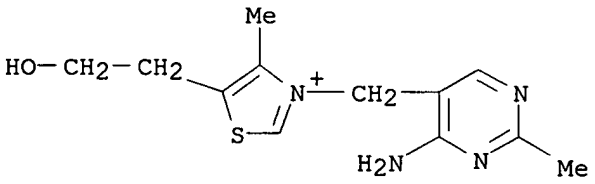
RE

(1) Castrogiovanni; US 5102654 A 1992 HCAPLUS
(2) Dybas; US 4061775 A 1977
(3) Rawlings; US 5472698 A 1995 HCAPLUS

IT **67-03-8**, Thiamine hydrochloride
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(nail strengthening compns. contg. permeation/binding agent, thio crosslinking agent, and chelating agent)

RN 67-03-8 HCAPLUS

CN Thiazolium, 3-[(4-amino-2-methyl-5-pyrimidinyl)methyl]-5-(2-hydroxyethyl)-4-methyl- chloride, monohydrochloride (9CI) (CA INDEX NAME)



● Cl⁻

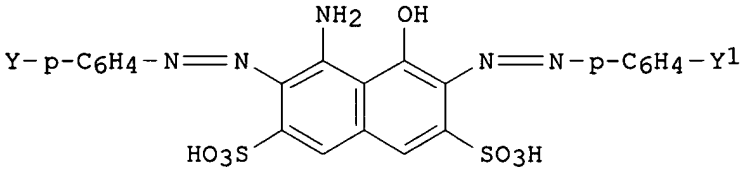
● HCl

L70 ANSWER 25 OF 53 HCAPLUS COPYRIGHT 2003 ACS
AN 1997:547260 HCAPLUS
DN 127:150173
TI Reactive dye aqueous compositions with good storability and dyeing and printing therewith
IN Yamate, Shinichi; Tokieda, Takemi; Yabushita, Shinichi; Nishimura, Shinji
PA Sumitomo Chemical Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DT Patent

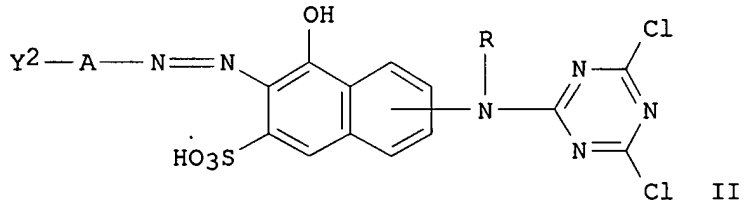
LA Japanese
IC ICM C09B067-22
ICS C09B067-44; D06P003-66
CC 40-6 (Textiles and Fibers)
Section cross-reference(s): **41**
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09169923	A2	19970630	JP 1995-330332	19951219
PRAI	JP 1995-330332		19951219		

OS MARPAT 127:150173
GI



I



II

AB The title compns. contain reactive dyes of free-acid form I and II in 1:0.05-0.8 ratio [Y, Y1, Y2 = SO2CH:CH2, SO2CH2CH2Z; Z = alkali-removable group; A = (un)substituted phenylene, naphthylene; R = H, (un)substituted lower alkyl], with addn. of 0.1-30% pH buffer, 0.1-30% redn. preventer, at pH 2.5-7. A compn. of C.I. Reactive Black 5 25, II (N bonding at the 7-position; R = H; A = p-C6H4; Y2 = 2-sodiosulfoethylsulfonyl) 16, and C.I. Reactive Yellow 145 1 part was mixed with 3% Na citrate and 3% Na m-nitrobenzenesulfonate and dissolved in 50 parts water with pH adjusted to 4.0 to give a compn. storable >1 mo at 40.degree..

ST reactive azo dye mixt storability; redn preventer reactive azo dye
IT Reduction
(preventers; reactive dye aq. compns. with good storability and dyeing and printing therewith)
IT Buffers
Dyeing
Reactive azo dyes
Textile printing
(reactive dye aq. compns. with good storability and dyeing and printing therewith)
IT 62-76-0, Sodium oxalate 127-08-2, Potassium acetate 127-09-3, Sodium acetate 127-68-4, Sodium 3-nitrobenzenesulfonate 141-95-7, Sodium malonate 877-24-7, Potassium hydrogen phthalate 994-36-5, Sodium citrate 1321-69-3, Sodium naphthalenesulfonate 7558-79-4, Disodium

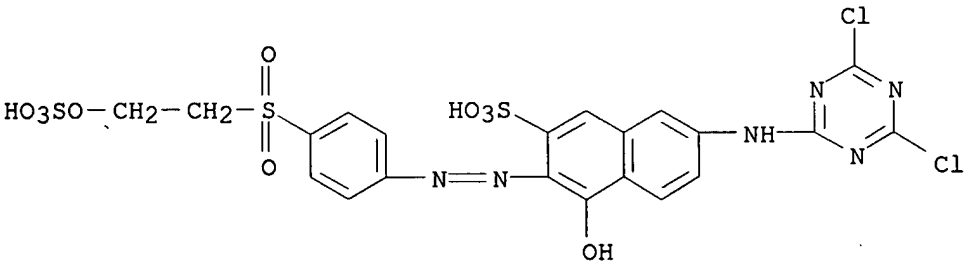
phosphate 7558-80-7, Monosodium phosphate 7601-89-0, Sodium perchlorate 7632-00-0, Sodium nitrite 7758-11-4, Dipotassium phosphate 7775-09-9, Sodium chlorate 7778-77-0, Monopotassium phosphate 10043-22-8, Potassium oxalate 11105-06-9, Sodium vanadate 12712-38-8, Potassium **borate** 13840-56-7, Sodium **borate** 14047-56-4 14475-11-7, Sodium tartrate, uses 15630-89-4, Sodium percarbonate 135597-64-7
RL: MOA (Modifier or additive use); USES (Uses)
(reactive dye aq. compns. with good storability and dyeing and printing therewith)

IT 12731-60-1, C.I. Reactive Black 25 93050-80-7, C.I. Reactive Yellow 145 **193222-36-5**
RL: TEM (Technical or engineered material use); USES (Uses)
(reactive dye aq. compns. with good storability and dyeing and printing therewith)

IT **193222-36-5**
RL: TEM (Technical or engineered material use); USES (Uses)
(reactive dye aq. compns. with good storability and dyeing and printing therewith)

RN 193222-36-5 HCAPLUS

CN 2-Naphthalenesulfonic acid, 7-[(4,6-dichloro-1,3,5-triazin-2-yl)amino]-4-hydroxy-3-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]-, monosodium salt (9CI) (CA INDEX NAME)



L70 ANSWER 26 OF 53 HCAPLUS COPYRIGHT 2003 ACS

AN 1997:296686 HCAPLUS

DN 126:278955

TI Reactive derivatives of sulforhodamine 101 with enhanced hydrolytic stability, their conjugates, and labeling kits containing them

IN Haugland, Richard P.; Szalecki, Wojciech

PA Molecular Probes Inc, USA

SO Brit. UK Pat. Appl., 53 pp.
CODEN: BAXXDU

DT Patent

LA English

IC ICM C09B062-002
ICS C07H019-10; C07J043-00; C07K004-00; C08B037-02; C09B057-14

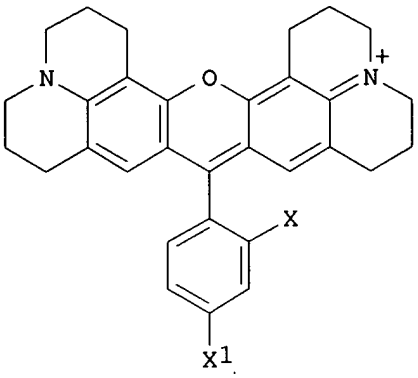
CC 41-5 (**Dyes**, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)
Section cross-reference(s): 9

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	GB 2302094	A1	19970108	GB 1996-11997	19960607
	GB 2302094	B2	19990317		
	US 5798276	A	19980825	US 1995-485033	19950607
PRAI	US 1995-485033		19950607		

OS MARPAT 126:278955

GI



I

AB The reactive fluorescent dyes have an alkyl spacer attached via a sulfonamide bond to a sulforhodamine 101 fluorophore, and form a variety of conjugates which are useful in the detection of a complementary member of a binding pair. The increased length of the covalent **linkage** due to the alkyl spacer results in dye conjugates having enhanced soly. and increased fluorescence. The reactive dyes are of the formula I [X or X1 is SO3-; X or X1 is SO2NR1(CH2)nR; R is a reactive group; R1 is H, C1-6 alkyl, or C1-6 acyl; n is 1-8]. The dyes are useful for selective modification of groups other than amines, including thiols and photoreactive derivs.

ST sulforhodamine deriv fluorescent label; sulfonamide deriv sulforhodamine dye

IT Immunoglobulins
RL: **SPN (Synthetic preparation); PREP (Preparation)**
(G, goat antimouse, conjugates; fluorescent conjugates of reactive derivs. of sulforhodamine 101)

IT Phycoerythrins
RL: **SPN (Synthetic preparation); PREP (Preparation)**
(R-phycoerythrins, conjugates; fluorescent conjugates of reactive derivs. of sulforhodamine 101)

IT Amino acids, preparation
DNA
Oligonucleotides
Peptides, preparation
Proteins, specific or class
RL: **SPN (Synthetic preparation); PREP (Preparation)**
(conjugates; fluorescent conjugates of reactive derivs. of sulforhodamine 101)

IT Glycoconjugates
RL: **SPN (Synthetic preparation); PREP (Preparation)**
(fluorescent conjugates of reactive derivs. of sulforhodamine 101)

IT Fluorescent dyes

Reactive dyes
(reactive derivs. of sulforhodamine 101 with enhanced hydrolytic stability)

IT Albumins, preparation
RL: **SPN (Synthetic preparation)**; **PREP (Preparation)**
(serum, bovine, conjugates; fluorescent conjugates of reactive derivs. of sulforhodamine 101)

IT 9013-20-1DP, Streptavidin, conjugates
RL: ARG (Analytical reagent use); **SPN (Synthetic preparation)**; ANST (Analytical study); **PREP (Preparation)**; USES (Uses)
(fluorescent conjugates of reactive derivs. of sulforhodamine 101)

IT 9004-54-0DP, Dextran, conjugates with reactive sulforhodamine derivs., preparation 9031-11-2DP, .beta.-Galactosidase, conjugates with reactive sulforhodamine derivs. 17466-45-4DP, Phalloidin, conjugates with reactive sulforhodamine derivs. 37293-51-9DP, Aminodextran, conjugates with reactive sulforhodamine derivs. 93801-19-5DP, conjugates with reactive sulforhodamine derivs. 150205-70-2DP, conjugates with reactive sulforhodamine derivs.
RL: **SPN (Synthetic preparation)**; **PREP (Preparation)**
(fluorescent conjugates of reactive derivs. of sulforhodamine 101)

IT 178623-11-5P 188828-09-3P 188828-14-0P 188828-16-2P 188828-20-8P 188828-22-0P 188828-40-2P 188828-42-4P **188828-44-6P** **188828-46-8P**
RL: **IMF (Industrial manufacture)**; RCT (Reactant); TEM (Technical or engineered material use); **PREP (Preparation)**; RACT (Reactant or reagent); USES (Uses)
(isomer mixt. contg.; prepn. of reactive derivs. of sulforhodamine 101 with enhanced hydrolytic stability)

IT 188828-11-7P 188828-12-8P 188828-32-2P 188828-35-5P 188828-37-7P 188828-39-9P 188828-48-0P 188828-50-4P 188828-54-8P 188828-56-0P
RL: **IMF (Industrial manufacture)**; TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(isomer mixt. contg.; prepn. of reactive derivs. of sulforhodamine 101 with enhanced hydrolytic stability)

IT 188901-84-0P
RL: **IMF (Industrial manufacture)**; RCT (Reactant); **PREP (Preparation)**; RACT (Reactant or reagent)
(prepn. of reactive derivs. of sulforhodamine 101 with enhanced hydrolytic stability)

IT 178623-10-4P 188828-07-1P 188828-24-2P 188828-26-4P
RL: **IMF (Industrial manufacture)**; RCT (Reactant); TEM (Technical or engineered material use); **PREP (Preparation)**; RACT (Reactant or reagent); USES (Uses)
(prepn. of reactive derivs. of sulforhodamine 101 with enhanced hydrolytic stability)

IT 188828-28-6P 188828-30-0P
RL: **IMF (Industrial manufacture)**; TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(prepn. of reactive derivs. of sulforhodamine 101 with enhanced hydrolytic stability)

IT 108-31-6, 2,5-Furandione, reactions **108-77-0**, Cyanuric chloride 598-21-0, Bromoacetyl bromide 876-08-4, 4-(Chloromethyl)benzoyl chloride 923-61-5 2780-89-4, Methyl 6-aminohexanoate 82354-19-6, Texas Red 105832-38-0, O-(N-Succinimidyl)-N,N,N',N'-tetramethyluronium **tetrafluoroborate** 106627-54-7 126695-58-7 188828-18-4 188828-52-6 188858-36-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of reactive derivs. of sulforhodamine 101 with enhanced

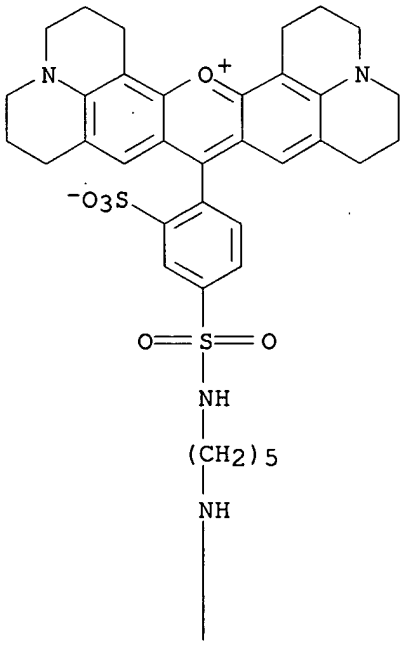
hydrolytic stability)

IT **188828-44-6P**
RL: **IMF (Industrial manufacture)**; RCT (Reactant); TEM (Technical or engineered material use); **PREP (Preparation)**; RACT (Reactant or reagent); USES (Uses)
(isomer mixt. contg.; prepn. of reactive derivs. of sulforhodamine 101 with enhanced hydrolytic stability)

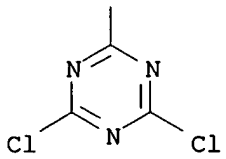
RN 188828-44-6 HCAPLUS

CN 1H,5H,11H,15H-Xantheno[2,3,4-ij:5,6,7-i'j']diquinolizin-18-ium, 9-[4-[[[5-[(4,6-dichloro-1,3,5-triazin-2-yl)amino]pentyl]amino]sulfonyl]-2-sulfophenyl]-2,3,6,7,12,13,16,17-octahydro-, inner salt (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



L70 ANSWER 27 OF 53 HCAPLUS COPYRIGHT 2003 ACS

AN 1994:330823 HCAPLUS

DN 120:330823

TI Cosmetic compositions with stabilized redox potential containing hydrosoluble metal salts

IN Rocher, Daniel; Noel, Hugues

PA Daniel Jouvance, Fr.
SO Eur. Pat. Appl., 6 pp.
CODEN: EPXXDW
DT Patent
LA French
IC ICM A61K007-48
ICS A61K007-00; A45D040-00
CC 62-4 (Essential Oils and **Cosmetics**)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 595690	A1	19940504	EP 1993-402589	19931021
	EP 595690	B1	19970108		
	R: BE, CH, DE, ES, GB, GR, IT, LI, NL, PT				
	FR 2697161	A1	19940429	FR 1992-12745	19921026
	FR 2697161	B1	19950113		
	US 5547676	A	19960820	US 1993-135475	19931013
	ES 2096248	T3	19970301	ES 1993-402589	19931021
	CN 1090168	A	19940803	CN 1993-119563	19931025
	CN 1042097	B	19990217		
	JP 06211641	A2	19940802	JP 1993-288786	19931026
PRAI	FR 1992-12745		19921026		

AB Cosmetic compns. with stabilized redox potential contg. hydrosol. metal salts are prepd. An antiwrinkle cream contained Zn pyrolidonecarboxylate 1.00, glycerin 1.00, 1,3-butanediol 5.00, Na lactate 0.50, Na cetylsulfate 2.50, isoamyl paramethoxycinnamate 2.00, .gamma.-orizanol 1.00, ethylhexyl laurate 17.00, pentaerythritol 3.00, 1,2-propanediol diethylhexanoate 6.50, vaseline 8.00, jojoba oil 4.4, PEG stearate 0.75, sorbitan monostearate 1.50, deodecamethylcyclohexasiloxane 4.00, tocopherols 0.10, retinol 0.15, polyacrylamide 0.60, DNA 0.3, 3% collagen 3.00 perfume q.s. preservative q.s., and water q.s. 100%.

ST cosmetic stability redox potential metal salt; antiwrinkle cream zinc pyrolidonecarboxylate

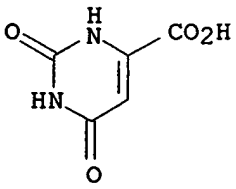
IT Cosmetics
Sunscreens
(hydrosol. metal salts in, with stabilized redox potential)

IT Cosmetics
(creams, wrinkle-preventing, hydrosol. metal salts in, with stabilized redox potential)

IT 60-00-4D, Edta, metal salts **65-86-1D**, Orotic acid, metal salts 67-43-6D, Dtpa, metal salts 69-93-2D, Uric acid, metal salts 83-86-3D, Phytic acid, metal salts 150-39-0D, HEDTA, metal salts **2809-21-4D**, Etidronic acid, metal salts 7439-89-6D, Iron, salts 7439-96-5D, Manganese, salts 7439-98-7D, Molybdenum, salts 7440-02-0D, Nickel, salts 7440-32-6D, Titanium, salts 7440-50-8D, Copper, salts 7440-62-2D, Vanadium, salts 7440-66-6D, Zinc, salts 7664-41-7D, Ammonia, salts 7782-49-2D, Selenium, salts 15454-74-7 15454-75-8
RL: BIOL (Biological study)
(cosmetic compns. with stabilized redox potential contg.)

IT **65-86-1D**, Orotic acid, metal salts
RL: BIOL (Biological study)
(cosmetic compns. with stabilized redox potential contg.)

RN 65-86-1 HCAPLUS
CN 4-Pyrimidinecarboxylic acid, 1,2,3,6-tetrahydro-2,6-dioxo- (9CI) (CA INDEX NAME)

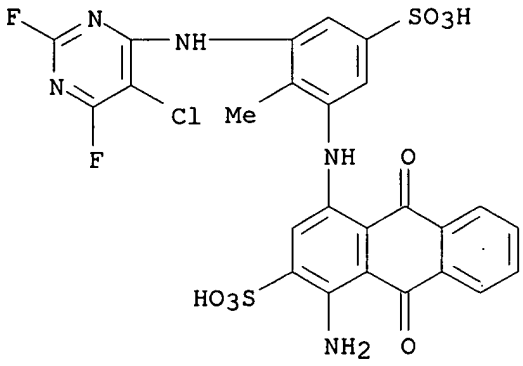


L70 ANSWER 28 OF 53 HCAPLUS COPYRIGHT 2003 ACS
AN 1992:22873 HCAPLUS
DN 116:22873
TI Preparation of storage-stable anionic reactive dye aqueous solutions
IN Michna, Martin; Zillger, Werner; Tegtmeyer, Dietrich
PA Bayer A.-G., Germany
SO Eur. Pat. Appl., 8 pp.
CODEN: EPXXDW
DT Patent
LA German
IC ICM C09B067-54
ICA C09B067-26
CC 41-3 (**Dyes**, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 446732	A2	19910918	EP 1991-103157	19910302
	EP 446732	A3	19920520		
	R: CH, DE, FR, GB, LI				
	DE 4008262	A1	19910919	DE 1990-4008262	19900315
	US 5145485	A	19920908	US 1991-665630	19910306
PRAI	DE 1990-4008262		19900315		

OS MARPAT 116:22873
AB The solns. are obtained by pressure permeation of solns. or suspensions of the crude dyes by the steps of desalination and optionally concn., using boric acid or its salts. The **borate** improves the filtrate flow rate. Thus, 190 kg of a suspension contg. 5.3% crude 7-(5-chloro-2,6-difluoro-4-pyrimidinylamino)-4-hydroxy-3-[(4-methoxy-2-sulfophenyl)azo]-2-naphthalenesulfonic acid Li Na salt and 1 kg H3BO3 was desalted by permeation using a polysulfone-supported **polyamide** membrane at pH 7.5, temp. 45.degree., and pressure 30 bars to give 95 kg dye conc. This conc. was combined with 2 kg dicyandiamide and 2.5 kg demineralized water and buffered with 0.5 kg boric acid. The resulting liq. contained .apprx.10% pure dye and was storage stable.
ST reactive azo dye soln stability; boric acid filtration dye conc
IT Dyes, reactive
(azo, anionic, prepn. of storage-stable aq. solns. of, boric acid or **borate** salts in)
IT **72139-17-4 72828-73-0 105037-51-2**
138088-74-1
RL: USES (Uses)
(dye, prepn. of storage-stable solns. of, boric acid or **borate** salts in)
IT 10043-35-3, Boric acid, uses
RL: USES (Uses)
(in prepn. of storage-stable aq. solns. of reactive dyes)

IT **72139-17-4**
RL: USES (Uses)
(dye, prepn. of storage-stable solns. of, boric acid or **borate** salts in)
RN 72139-17-4 HCAPLUS
CN 2-Anthracenesulfonic acid, 1-amino-4-[[3-[(5-chloro-2,6-difluoro-4-pyrimidinyl)amino]-2-methyl-5-sulfophenyl]amino]-9,10-dihydro-9,10-dioxo-, disodium salt (9CI) (CA INDEX NAME)



●2 Na

L70 ANSWER 29 OF 53 HCAPLUS COPYRIGHT 2003 ACS
AN 1991:516259 HCAPLUS
DN 115:116259
TI Reactive dye compositions for dyeing and printing of cellulosic fibers
IN Harada, Naoki; Yoshikawa, Sadanobu; Tokieda, Takemi; Hashizume, Shuhei; Miyamoto, Tetsuya
PA Sumitomo Chemical Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM C09B062-51
ICS C09B067-26
CC 40-6 (Textiles and Fibers)
Section cross-reference(s): **41**
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 03064370	A2	19910319	JP 1989-201561	19890802
PRAI	JP 1989-201561		19890802		

OS MARPAT 115:116259
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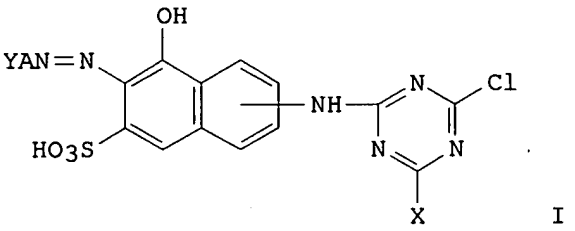

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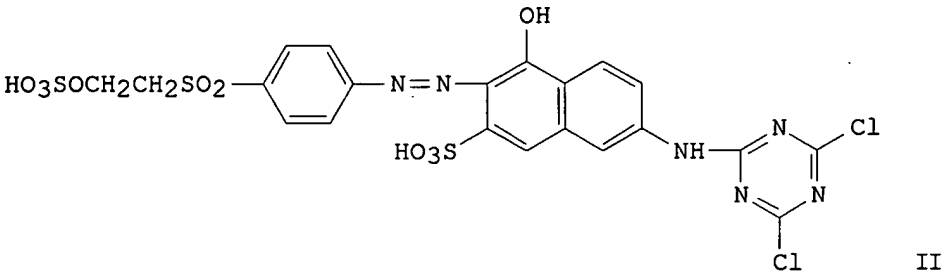


II

AB The title compns., with good storage stability, contain the azo dyes I [A = Ph, C10H7, or deriv.; X = Cl, OH; Y = vinylsulfonyl, SO2CH2CH2Z (Z = alkali-cleavable group)] and <30% (based on dye) buffers giving aq. dispersions with pH 3-8. An aq. dispersion of 17 parts reactive dye II and 2.8 parts NaH2PO4.2H2O was adjusted to pH 5.5 with Na2CO3 and spray-dried to give a compn. showing no adverse effects in dyeing of cellulose after >1 mo storage.

ST buffer reactive azo dye; phosphate buffer reactive dye; reactive dye storage stable; J acid reactive dye; chlorotriazine deriv reactive dye

IT Buffer substances and systems
(for storage-stable reactive dye compns.)

IT **Textile** printing
(storable-stable buffered reactive azo dye compns. for)

IT Dyes, reactive
(azo, storage-stable buffered compns. of)

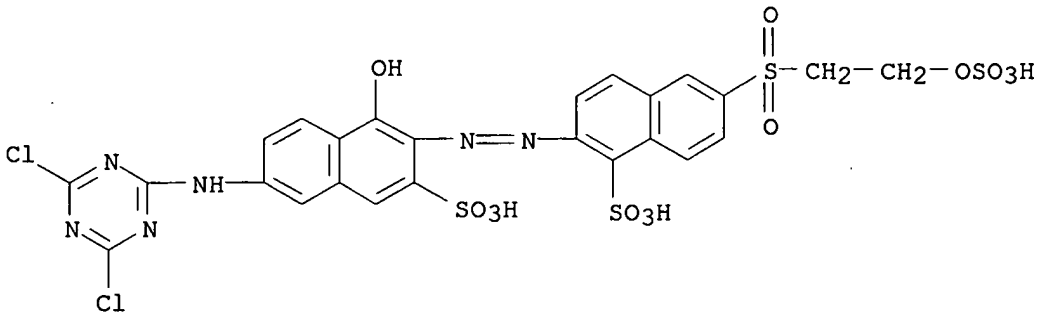
IT 127-08-2, Potassium acetate 127-09-3, Sodium acetate 583-52-8, Potassium oxalate 877-24-7, Potassium hydrogen phthalate 1333-73-9, Sodium **borate** 7558-79-4, Disodium phosphate 7558-80-7, Monosodium phosphate 7758-11-4, Dipotassium phosphate 7778-77-0, Monopotassium phosphate 10043-22-8, Potassium oxalate 12712-38-8, Potassium **borate** 135597-64-7
RL: USES (Uses)
(buffers, for storage-stable reactive dye compns.)

IT **117715-56-7 117715-58-9 117715-71-6 131673-10-4 131673-12-6 135729-23-6 135729-24-7 135729-25-8 135755-48-5**
RL: USES (Uses)
(dyes, storage-stable buffered compns. of)

IT **117715-56-7**
RL: USES (Uses)
(dyes, storage-stable buffered compns. of)

RN 117715-56-7 HCAPLUS

CN 1-Naphthalenesulfonic acid, 2-[[6-[(4,6-dichloro-1,3,5-triazin-2-yl)amino]-1-hydroxy-3-sulfo-2-naphthalenyl]azo]-6-[[2-(sulfooxy)ethyl]sulfonyl]- (9CI) (CA INDEX NAME)



L70 ANSWER 30 OF 53 HCAPLUS COPYRIGHT 2003 ACS
AN 1989:40501 HCAPLUS
DN 110:40501
TI Diaminostilbene derivative fluorescent brighteners
IN Farrar, John Martin
PA Sandoz-Patent-G.m.b.H., Fed. Rep. Ger.
SO Ger. Offen., 11 pp.
CODEN: GWXXBX
DT Patent
LA German
IC ICM C07D251-68
ICS C07D251-46; C07D251-52; D06L003-12; C07C143-62
ICA C11D003-42
CC 41-10 (**Dyes**, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)
Section cross-reference(s): 25
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3805513	A1	19880901	DE 1988-3805513	19880222
	FR 2611365	A1	19880902	FR 1988-2101	19880219
	CH 676000	A	19901130	CH 1988-631	19880219
	GB 2203426	A1	19881019	GB 1988-4056	19880222
	JP 63233979	A2	19880929	JP 1988-38770	19880223
PRAI	GB 1987-4328		19870224		

OS CASREACT 110:40501; MARPAT 110:40501
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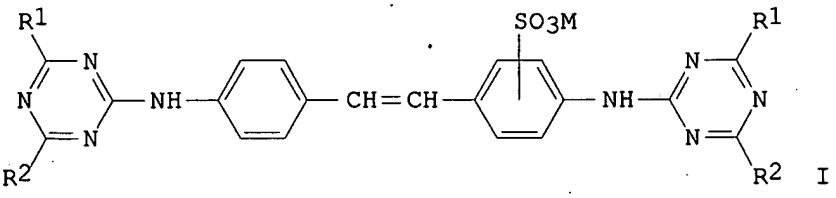

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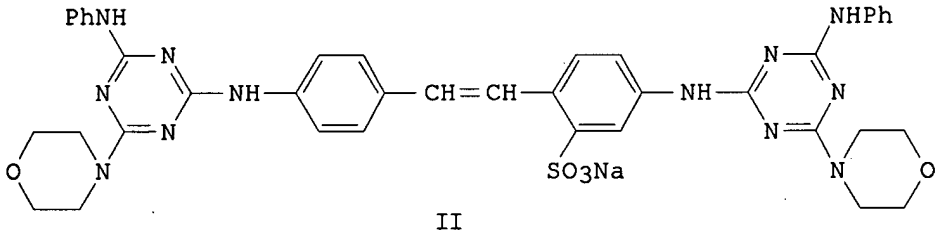


II

AB Title compds. I (M = H, colorless cation; R1, R2 = halogen, NR3R4, OR3, SMe; (un)substituted Ph, (un)substituted C1-4 alkyl; R4 = H, C1-4 alkyl, substituted C2-4 alkyl, C1-4 alkylphenyl; or NR3R4 = a N-contg. heterocycle), useful as fluorescent brighteners for **textiles** and paper, are prepd. by the condensation of cyanuric chloride derivs. with diaminosulfostilbene derivs., followed by condensation with the appropriate protic compds. 4-H2NC6H4CH:CHC6H4(SO3Na)NH2-2,4 was condensed with cyanuric chloride, and the intermediate condensed with PhNH2 and morpholine, producing II.

ST diaminostilbene deriv fluorescent brightener manuf; **textile** diaminostilbene deriv fluorescent brightener; paper diaminostilbene deriv fluorescent brightener

IT Fluorescent brighteners
(bis(triazinylamino)sulfostilbene derivs., manuf. of, for paper and **textiles**)

IT 62-53-3, Aniline, reactions 110-91-8, Morpholine, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensation of, with cyanuric chloride derivs.)

IT **108-77-0**, Cyanuric chloride
RL: USES (Uses)
(condensation of, with sodium diaminostilbenesulfonate)

IT **102269-58-9P**
RL: PREP (Preparation)
(manuf. of, as fluorescent brightener for paper or **textiles**)

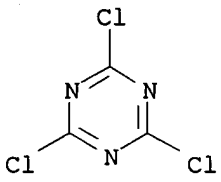
IT 3709-43-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(oxidn. of)

IT 118382-08-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and condensation of, with cyanuric chloride)

IT 1080-32-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and nitration of)

IT 5428-55-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction of, with di-Et **nitrobenzylphosphonate**)

IT 2609-49-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction of, with sodium formylnitrobenzenesulfonic acid)
IT 118382-06-2P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and redn. of)
IT 118382-07-3P
RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn. of)
IT 35649-03-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with nitrobenzaldehyde)
IT 122-52-1, Triethylphosphite
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with nitrobenzyl bromide)
IT 99-99-0, p-Nitrotoluene
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with sodium formylnitrobenzenesulfonate)
IT 100-11-8, 4-Nitrobenzylbromide 100-44-7, Benzyl chloride, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with tri-Et phosphite)
IT **108-77-0**, Cyanuric chloride
RL: USES (Uses)
(condensation of, with sodium diaminostilbenesulfonate)
RN 108-77-0 HCAPLUS
CN 1,3,5-Triazine, 2,4,6-trichloro- (9CI) (CA INDEX NAME)



L70 ANSWER 31 OF 53 HCAPLUS COPYRIGHT 2003 ACS
AN 1987:121391 HCAPLUS
DN 106:121391
TI Aqueous liquid reactive dye composition
IN Yamauchi, Noriaki; Ikeou, Shinnei; Imada, Kunihiko
PA Sumitomo Chemical Co., Ltd., Japan
SO Eur. Pat. Appl., 29 pp.
CODEN: EPXXDW
DT Patent
LA English
IC ICM C09B067-26
ICS D06P001-38
CC 41-3 (**Dyes**, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)
Section cross-reference(s): 40
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 208829	A1	19870121	EP 1986-102064	19860218

	EP 208829	B1	19901227		
	EP 208829	B2	19980408		
	R: BE, CH, DE, FR, GB, IT, LI, NL, SE				
	JP 62018473	A2	19870127	JP 1985-157337	19850717
	JP 2517220	B2	19960724		
	US 4693725	A	19870915	US 1986-831300	19860220
	US 4834771	A	19890530	US 1986-836719	19860306
PRAI	JP 1985-157337		19850717		

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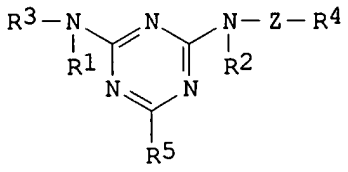
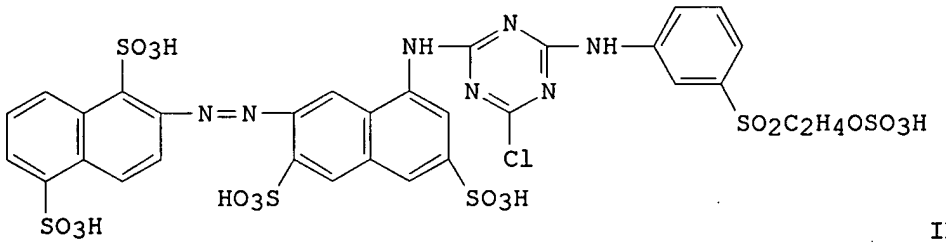


I



II

AB The title compns. contain bifunctional reactive dyes I [R1, R2 = H, (un)substituted lower alkyl; R3 = org. dye residue having .gtoreq.1 sulfonic acid group; R4 = SO2CH:CH2, SO2CH2CH2R6; R6 = alkali-cleavable group; R5 = halo; Z = (un)substituted phenylene or naphthylene], in an amt. 5-50% based on the wt. of the liq. compn., are storage-stable, and have pH values 3-7. A 900-part clear dye soln., contg. 22.2% II, was added to 15 parts NaOAc.3H2O, and the whole made to 1000 parts with H2O producing an aq. liq. dye compn. of pH 5.5 which dyed **cotton** fabric in a red shade by conventional exhaustion, or padding processes.

ST bifunctional reactive dye liq compn; **cotton** fabric bifunctional reactive dye; halotriazine contg bifunctional reactive dye

IT Dyes, reactive
(bifuntional, azo, manuf. of aq. liq. compns. contg., with high storage stability)

IT **Textile** printing
(on **cotton**, aq. liq. bifunctional reactive dye compns. for, manuf. of)

IT **80156-97-4 80315-16-8 81494-14-6**
101362-38-3 104256-91-9 105936-66-1
105956-68-1 107143-02-2 107143-06-6
107143-07-7 107143-08-8 107143-09-9
107143-10-2 107143-11-3 107143-12-4
107198-76-5 107198-77-6 107221-77-2
RL: USES (Uses)
(aq. liq. dye compns. contg., manuf. of)

IT 147-14-8D, sulfonated, chlorotriazine derivs.
RL: USES (Uses)
(aq. liq. reactive dye compns. contg., manuf. of)

IT 62-76-0, Sodium oxalate 127-08-2, Potassium acetate 127-09-3, Sodium

acetate 583-52-8, Potassium oxalate 877-24-7, Potassium hydrogenphthalate 1330-43-4 1332-77-0, Potassium **borate** 7558-79-4, Disodium hydrogenphosphate 7558-80-7, Sodium dihydrogenphosphate 7758-11-4, Dipotassium hydrogenphosphate 7778-77-0, Potassium dihydrogenphosphate
RL: USES (Uses)
(buffer, aq. liq. bifunctional reactive dye compns. contg.)

IT 2494-88-4
RL: USES (Uses)
(condensation of, with chlorotriazines)

IT 3177-22-8, Sodium 2,4-diaminobenzenesulfonate
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensation of, with cyanuric chloride)

IT **108-77-0**, Cyanuric chloride
RL: USES (Uses)
(condensation of, with sodium diaminobenzenesulfonate)

IT 121-57-3, Aniline-4-sulfonic acid
RL: USES (Uses)
(coupling of diazotized, with aminohydroxynaphthalenedisulfonic acid)

IT 3963-80-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(coupling of, with diazotized aminobenzenesulfonic acid)

IT 107143-03-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(coupling of, with diazotized diaminobenzenesulfonics acids)

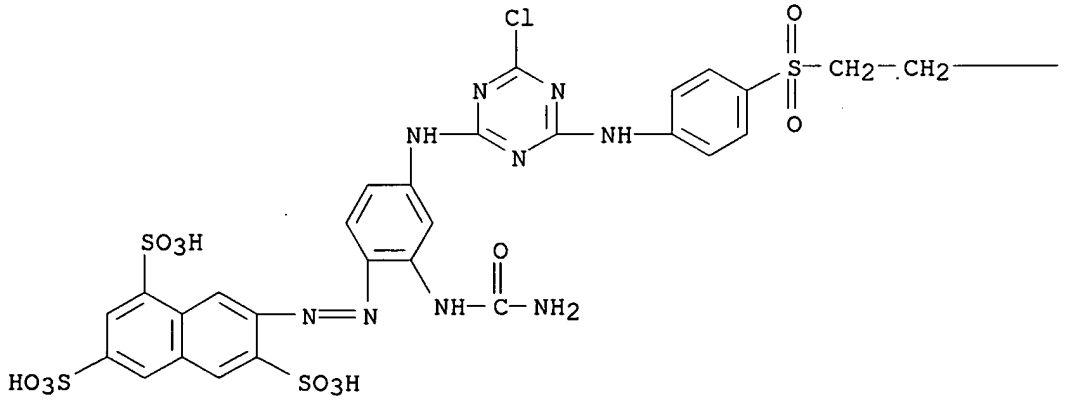
IT **107143-04-4P 107143-05-5P**
RL: PREP (Preparation)
(manuf. of, as dye for aq. liq. dyeing compns.)

IT **80156-97-4**
RL: USES (Uses)
(aq. liq. dye compns. contg., manuf. of)

RN 80156-97-4 HCAPLUS

CN 1,3,6-Naphthalenetrisulfonic acid, 7-[[2-[(aminocarbonyl)amino]-4-[[4-chloro-6-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]phenyl]azo]-, tetrasodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



4 Na

PAGE 1-B

—OSO_3H

L70 ANSWER 32 OF 53 HCAPLUS COPYRIGHT 2003 ACS
AN 1986:628527 HCAPLUS
DN 105:228527
TI Asymmetrical bis(triazinylamino)stilbene optical brighteners
IN Connell, David Longley; Farrar, John Martin; Heller, Juerg; Schmid, Hans Rudolf
PA Sandoz-Patent-G.m.b.H., Fed. Rep. Ger.
SO Ger. Offen., 18 pp.
CODEN: GWXXBX
DT Patent
LA German
IC ICM C07D251-54
ICS C07D251-52; C07D403-04; C07D413-04; C07D251-42; C07D251-48; D06L003-12
ICA C07F009-40
CC 41-10 (**Dyes**, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)
Section cross-reference(s): 25, 40, 43
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3605456	A1	19860828	DE 1986-3605456	19860220
	NL 8600439	A	19860916	NL 1986-439	19860221
	GB 2171407	A1	19860828	GB 1986-4511	19860224
	GB 2171407	B2	19891220		
	CH 677112	A	19910415	CH 1986-715	19860224
	BE 904274	A1	19860825	BE 1986-11440	19860225
	FR 2581994	A1	19861121	FR 1986-2696	19860225
	ES 552355	A1	19870801	ES 1986-552355	19860225
	JP 61200974	A2	19860905	JP 1986-39326	19860226
	US 4754032	A	19880628	US 1986-834180	19860226
	GB 2203433	A1	19881019	GB 1988-8411	19880411
	GB 2203433	B2	19890920		
PRAI	GB 1985-5064		19850227		
	GB 1986-4511		19860224		

OS CASREACT 105:228527
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Asym. stilbene optical brighteners I [R, R1 = NR4R5, SMe, halogen, OR4; R2 = H, C1-4 alkyl, MeO, CO2H, sulfamoyl, carbamoyl, PhSO2, CN; R3 = H, Me; R4 = H, (un)substituted Ph, C1-4 alkyl, (un)substituted C2-4 alkyl; R5 = H, (un)substituted C1-4 alkyl; NR4R5 may be heterocyclic ring moiety] are useful as optical brighteners for **textiles** and paper, and are

prepd. by the homolytic oxidn. of sym. stilbenes to the corresponding aldehydes with subsequent unsym. stilbene coupling via the Horner-Wittig reaction. Thus, II was oxidized with KMnO4 to the corresponding benzaldehyde which reacted with di-Et (4-nitrobenzyl)**phosphonate** and KOH, the coupled nitrostilbene intermediate reduced to the corresponding amine, and the amine condensed with morpholino(phenylamino)chlorotriazine to form III.

ST asym stilbene optical brightener; paper **textile** unsym optical brightener; fluorescent asym optical brightener; Horner Wittig stilbene prepn

IT Fluorescent brighteners
(asym. bis(triazinylamino)stilbenes as, for paper and **textiles**, manuf. of)

IT Paper
(fluorescent brighteners for, asym. bis(triazinylamino)stilbenes as, manuf. of)

IT Oxidation
(of sym. stilbenes with potassium permanganate, benzaldehydes from)

IT Wittig reaction
(Horner, of (triazinylamino)sulfobenzaldehydes with di-Et (nitrobenzyl) **phosphonate**)

IT 122-52-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(Arbuzov reaction of, with nitrobenzyl bromide)

IT 100-11-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(Arbuzov reaction of, with tri-Et phosphite)

IT **108-77-0**
RL: USES (Uses)
(condensation of, with aniline and morpholine)

IT 62-53-3, reactions 110-91-8, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensation of, with cyanuric chloride)

IT **16090-02-1**
RL: RCT (Reactant); RACT (Reactant or reagent)
(oxidn. of, with potassium permanganate)

IT 2609-49-6P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and Horner reaction of, with [[morphoino(phenylamino)triazine]amino]sulfobenzaldehyde)

IT **105445-81-6P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and condensation of, with aminochlorotriazines)

IT **105445-80-5P**
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and redn. of, with sodium carbonate and piperidine)

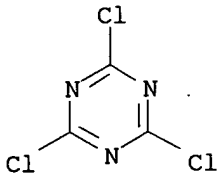
IT **102269-58-9P**
RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn. of, as optical brightener for paper and **textiles**)

IT **105445-79-2**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with di-Et (nitrobenzyl)**phosphonate**)

IT **108-77-0**
RL: USES (Uses)
(condensation of, with aniline and morpholine)

RN 108-77-0 HCAPLUS

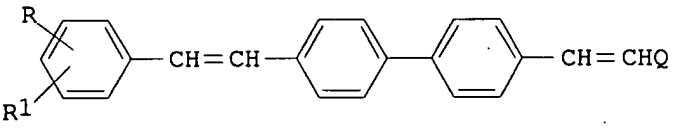
CN 1,3,5-Triazine, 2,4,6-trichloro- (9CI) (CA INDEX NAME)



L70 ANSWER 33 OF 53 HCAPLUS COPYRIGHT 2003 ACS
AN 1985:506306 HCAPLUS
DN 103:106306
TI 4-(Heterocyclylvinyl)-4'-styrylbiphenyl fluorescent whiteners
IN Meyer, Hans Rudolf
PA Ciba-Geigy A.-G. , Switz.
SO Eur. Pat. Appl., 51 pp.
CODEN: EPXXDW
DT Patent
LA German
IC ICM C07D271-06
ICS C07D271-10; C07D271-08; C07D251-22; C07D239-26; C07D239-30; C07D239-32; C07D239-34; C07D239-38; C07D239-42; C07D239-69
CC 41-10 (**Dyes**, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 136259	A1	19850403	EP 1984-810374	19840730
	EP 136259	B1	19880615		
	R: CH, DE, FR, GB, LI				
	US 4666627	A	19870519	US 1984-635099	19840727
	JP 60054372	A2	19850328	JP 1984-164733	19840806
PRAI	CH 1983-4266		19830805		

GI



I

AB Title compds. of general structure I are prepd., where Q = (un)substituted isoxazolyl, oxadiazolyl, pyrimidinyl, or triazinyl, R = H or a **nonchromophoric** substituent, and R1 = H, halogen, or alkyl. I shows a good whitening effect and good lightfastness when used alone or in combination with other whiteners on polyester and **polyamide** substrates. Thus, condensation of 4'-(2-cyanostyryl)biphenyl-4-carboxaldehyde [83255-00-9] with di-Et [(3-methyl-1,2,4-oxadiazol-5-yl)methyl]**phosphonate** [72398-73-3] in DMF at .apprx.40.degree. in the presence of NaOMe gave I (R = 4-CN, R1 = H, Q = 3-methyl-1,2,4-oxadiazol-5-yl) [97908-04-8] as pale yellow crystals m. 178-180.degree.. Condensation of 4'-(4-cyanostyryl)biphenyl-4-carboxaldehyde [83254-88-0] with 2-methylpyrimidine [**5053-43-0**

] in DMF contg. tert-BuOK gave pale yellow I(R = 4-CN, R1 = H, Q = pyrimidin-2-yl) [**97908-05-9**], m. 309.degree.. Numerous other I were prepd. by these 2 methods. Several examples of the use of I on polyester and **polyamide textiles** are described in detail.

ST heterocyclylvinylbiphenyl fluorescent whitener; stilbene fluorescent whitener; biphenyl fluorescent whitener; oxadizolylvinylbiphenyl fluorescent whitener; pyrimidinylvinylbiphenyl fluorescent whitener; polyester fluorescent whitener; **polyamide** fluorescent whitener

IT Fluorescent brighteners
((heterocyclylvinyl)styrylbiphenyls, for **polyamide** and polyester fibers)

IT **Polyamide** fibers, uses and miscellaneous
Polyester fibers, uses and miscellaneous
RL: USES (Uses)
(fluorescent brighteners for, (heterocyclylvinyl)styrylbiphenyls as)

IT 97908-00-4
RL: USES (Uses)
(condensation of, with (carboxystyryl)biphenylcarboxaldehyde)

IT **823-94-9 3438-46-8 5053-43-0**
14331-54-5 30856-31-6 52172-49-3 72398-73-3 89102-71-6
97907-98-7 97907-99-8 97908-01-5 97908-02-6
RL: USES (Uses)
(condensation of, with (cyanostyryl)biphenylcarboxaldehyde)

IT 53605-96-2
RL: USES (Uses)
(condensation of, with biphenyldicarboxaldehyde)

IT 83254-88-0 83255-00-9 83255-07-6 83255-12-3 97907-96-5
RL: USES (Uses)
(condensation of, with di-Et (heterocyclylmethyl)**phosphonates**)

IT 66-98-8
RL: USES (Uses)
(condensation of, with di-Et [(methylsulfonyl)benzyl] **phosphonate**)

IT 83254-90-2
RL: USES (Uses)
(condensation of, with di-Et [(phenyloxadiazolyl)methyl] **phosphonate**)

IT 1041-00-5 2702-44-5 2866-43-5 **3271-22-5** 5089-22-5
13001-38-2 13001-39-3 13001-40-6 22330-48-9 40704-04-9
60682-87-3 60683-03-6 64893-28-3 97908-03-7
RL: USES (Uses)
(fluorescent brightener mixt. contg., for polyester **textiles**)

IT **97907-91-0P 97907-92-1P 97907-93-2P**
97907-94-3P 97907-95-4P 97908-05-9P
RL: PREP (Preparation)
(fluorescent brightener of, manuf. of)

IT 97907-69-2P 97907-70-5P 97907-71-6P 97907-72-7P 97907-73-8P
97907-74-9P 97907-75-0P 97907-76-1P 97907-77-2P 97907-78-3P
97907-79-4P 97907-80-7P 97907-81-8P 97907-82-9P 97907-83-0P
97907-84-1P 97907-85-2P 97907-86-3P 97907-87-4P 97907-88-5P
97907-89-6P 97907-90-9P 97908-04-8P
RL: IMF (Industrial manufacture); PREP (Preparation)
(fluorescent brightener, manuf. of)

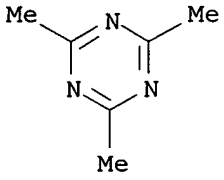
IT 97907-97-6P
RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn. and condensation with di-Et [(ethyloxadiazolyl)methyl]

phosphonate)

IT **823-94-9**
RL: USES (Uses)
(condensation of, with (cyanostyryl)biphenylcarboxaldehyde)

RN 823-94-9 HCAPLUS

CN 1,3,5-Triazine, 2,4,6-trimethyl- (9CI) (CA INDEX NAME)



L70 ANSWER 34 OF 53 HCAPLUS COPYRIGHT 2003 ACS

AN 1985:80255 HCAPLUS

DN 102:80255

TI Reactive disazo compounds

AU Anon.

CS USA

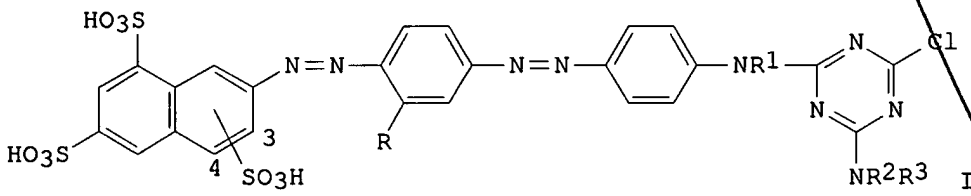
SO Research Disclosure (1985), 249, 49-51
CODEN: RSDSBB; ISSN: 0374-4353

DT Journal

LA German

CC 41-3 (**Dyes**, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)

GI



I

AB Dyes with free-acid general structure I are prepd., where R = C1-4 alkyl, R1 = H or (un)substituted C1-4 alkyl, R2 and R3 = H or (un)substituted C1-6 alkyl, and the SO3H group is in 3- or 4-position. I are fast orange dyes for cellulosic fibers. Thus, diazotization of 2-(4-amino-2-methylphenylazo)-4,6,8-naphthalenetrisulfonic acid [65180-65-6], coupling with PhNHCH2SO3Na [26021-90-9], removal of the methanesulfonate group, and reaction with cyanuric chloride [**108-77-0**] followed by diethanolamine [111-42-2] gave the tri-Na salt [**94852-49-0**] of I (4-SO3H; R = Me, R1 = H, R2 = R3 = CH2CH2OH), a light- and wetfast dye with good stability toward oxidizing agents such as hypochlorite, peroxide, or **perborate**.

ST disazo reactive dye; azo reactive dye; chlorotriazinyl reactive dye; cellulose fiber reactive dye; **cotton** fiber reactive dye

IT Dyes, reactive

([[[(aminodichlorotriazinyl)amino]phenylazo]phenylazo]naphthalenetrisulfonic acid derivs., orange, for cellulosic fibers)

IT 65180-65-6
RL: USES (Uses)
(coupling of diazotized, with sodium anilinomethanesulfonate)

IT 26021-90-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(coupling of, with diazotized (aminomethylphenylazo)naphthalenetrisulfonic acid)

IT **94852-49-0P**
RL: PREP (Preparation)
(manuf. of, as reactive orange dye for cellulosic fibers)

IT 94852-48-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction with cyanuric chloride)

IT **108-77-0**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with amino disazo dye and diethanolamine)

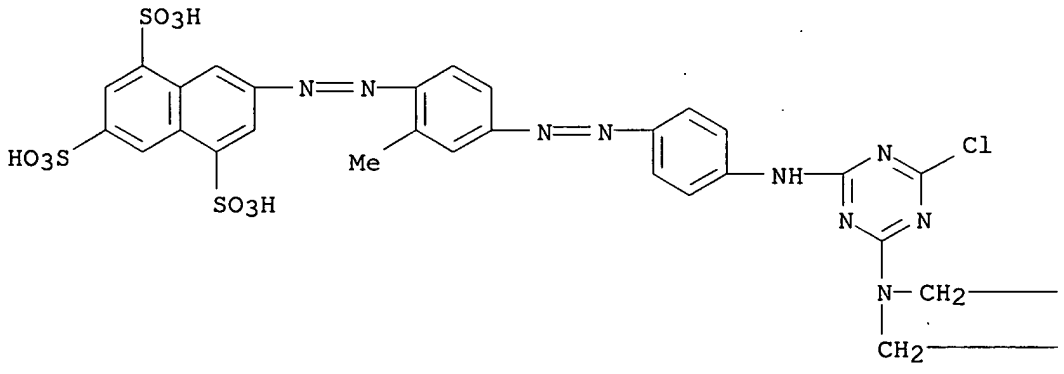
IT 111-42-2, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with dichlorotriazinylamino disazo dye)

IT **94852-49-0P**
RL: PREP (Preparation)
(manuf. of, as reactive orange dye for cellulosic fibers)

RN 94852-49-0 HCAPLUS

CN 1,3,5-Naphthalenetrisulfonic acid, 7-[[4-[[4-[[4-[bis(2-hydroxyethyl)amino]-6-chloro-1,3,5-triazin-2-yl]amino]phenyl]azo]-2-methylphenyl]azo]-, trisodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



●3 Na

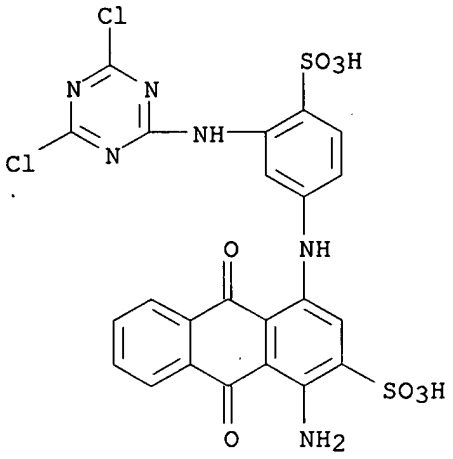
PAGE 1-B

——— CH_2—OH

— CH_2—OH

L70 ANSWER 35 OF 53 HCAPLUS COPYRIGHT 2003 ACS
AN 1984:631919 HCAPLUS
DN 101:231919
TI Quick method for **laboratory** determination of the stability of Helaktyn dyes during storage
AU Suminska, Jadwiga; Zalech, Alina; Maciejewski, Antoni
CS OBRPB - "Organika", Pol.
SO Biuletyn Informacyiny: Barwniki, Srodki Pomocnicze (1984), 28(1), 16-22
CODEN: BLIBAV; ISSN: 0209-1259
DT Journal
LA Polish
CC 41-1 (**Dyes**, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)
AB A method was developed for detn. of the stability of Helaktyn F dyes consisting of heating .apprx.1.5 g samples in sealed test tubes at 80.degree. for 1-27 h (depending on the dye), cooling the sample, dissolving 100 mg of the heated and nonheated (control) dyes in 40 mL distd. water, neutralizing the soln. with 0.1 NaOH to pH 7, exhaust dyeing 5-g **cotton** fabrics in the Ahiba app. at temp. optimal for each dye, comparison of the obtained dyeings with a previously prepd. intensity scale, and detg. whether the sample gives .gtoreq.10% decrease in color intensity in comparison with the control dye. Preliminary results indicated correlation of the method with practical results obtained during the storage of the dyes for several months, but correlation with results obtained in acid hydrolysis at 80.degree. under standardized conditions existed only for dyes having similar chem. structure.
ST Helaktyn F dye stability; reactive dye stability detn
IT Dyes, reactive
(stability of, in storage, detn. of, accelerated method for)
IT 12226-08-3 **13324-20-4** **17804-49-8** **61109-27-1**
71012-12-9 74565-17-6 **75026-93-6** **75026-95-8**
75030-18-1 93357-55-2 93357-56-3
RL: USES (Uses)
(storage stability of, detn. of, accelerated method for)
IT **13324-20-4**
RL: USES (Uses)
(storage stability of, detn. of, accelerated method for)
RN 13324-20-4 HCAPLUS
CN 2-Anthracenesulfonic acid, 1-amino-4-[[3-[(4,6-dichloro-1,3,5-triazin-2-yl)amino]-4-sulfophenyl]amino]-9,10-dihydro-9,10-dioxo- (9CI) (CA INDEX

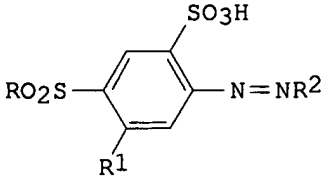
NAME)



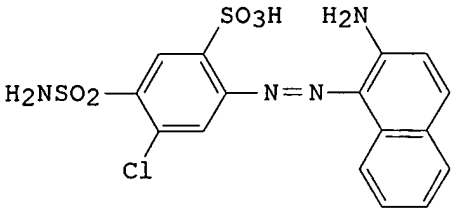
L70 ANSWER 36 OF 53 HCAPLUS COPYRIGHT 2003 ACS
AN 1982:87017 HCAPLUS
DN 96:87017
TI Monoazo dyes and their use
IN Hurter, Rudolf; Maeusezahl, Dieter
PA Ciba-Geigy A.-G. , Switz.
SO Eur. Pat. Appl., 76 pp.
CODEN: EPXXDW
DT Patent
LA German
IC C09B029-01; C09B062-008
ICA D06P001-06; D06P001-38
CC 41-3 (**Dyes**, Fluorescent Brighteners, and Photographic Sensitizers)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 39306	A1	19811104	EP 1981-810113	19810323
	EP 39306	B1	19840111		
	R: CH, DE, FR, GB				
	JP 56151763	A2	19811124	JP 1981-44753	19810328
	JP 03029825	B4	19910425		
	US 5106960	A	19920421	US 1991-674295	19910322
PRAI	CH 1980-2492		19800328		
	US 1981-246340		19810323		
	US 1986-828610		19860212		
	US 1987-14130		19870204		

GI



I



II

AB Dyes of general structure I are prepd., where R = aryloxy, optionally substituted C1-12 alkyl, cycloalkyl, aryl, or amino, R1 = halogen, lower alkyl, or lower akloxy, and R2 represents a benzene, naphthalene, or heterocyclic coupler radical. R2 may also contain a fiber-reactive substituent. I are esp. useful as light- and wetfast dyes for **polyamide** fibers. Thus, diazotization of 5,2,4-Cl(H2NSO2)2C6H2NH2 (II) [121-30-2] with NaNO2 (2 mol/mol I) and HCl in aq. sulfolane at 2-4.degree. and coupling with 2,1-H2NC10H6SO3H [81-16-3] gave II [80668-79-7], a red dye showing good lightfastness and migration properties on **polyamide** fibers. Numerous other dyes were prepd.

ST azo dye **polyamide** fiber; chlorobenzenedisulfonic azo dye; fiber reactive azo dye

IT Dyes, azo
(aminobenzenedisulfonic acid deriv.-based, for **polyamide** fibers and **wool**)

IT Dyes, reactive
(azo compds., aminobenzenedisulfonic acid deriv.-based, for **cotton** and **wool**)

IT **Polyamide** fibers, uses and miscellaneous
RL: USES (Uses)
(dyes for, aminobenzenedisulfonic acid deriv.-based monoazo compds. as)

IT Diazotization
(of aminochlorobenzenedisulfonamide, sulfamoyl group hydrolysis in)

IT 537-92-8 588-07-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(chlorosulfonation of)

IT 6375-46-8 80668-86-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(coupling of, with diazotized aminochloro(dimethylsulfamoyl)benzenesulfonic acid)

IT 81-16-3 91-67-8 108-95-2, reactions 39240-08-9 **80669-03-0** 80669-04-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(coupling of, with diazotized aminochlorobenzenedisulfonamide)

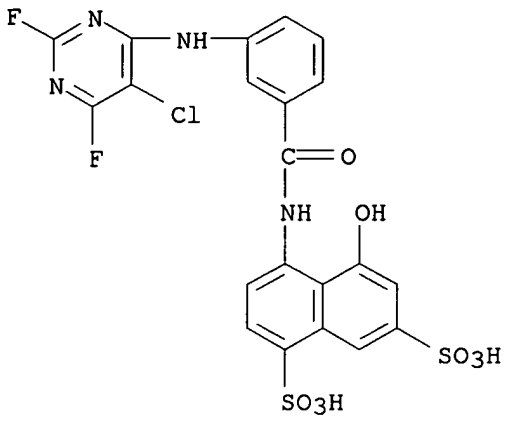
IT 121-30-2 1022-62-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(diazotization of, for azo coupling, sulfamoyl group hydrolysis in)

IT 80668-79-7P 80669-05-2P 80669-06-3P 80669-07-4P 80669-08-5P 80669-09-6P 80669-10-9P 80669-11-0P 80669-12-1P 80669-13-2P 80669-14-3P 80669-17-6P 80669-18-7P
RL: PREP (Preparation)
(manuf. of, as dye for **polyamide** fibers)

IT **80669-15-4P**
RL: PREP (Preparation)
(manuf. of, as reactive dye for **cotton** and **wool**)

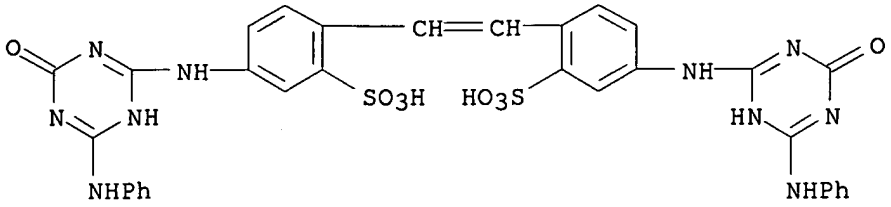
IT 80669-16-5P
RL: PREP (Preparation)

(manuf. of, as **wool** dye)
IT 80668-90-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and acetylation of)
IT 80668-88-8P 80668-91-3P 80668-92-4P 80668-95-7P 80669-02-9P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and azo coupling of, with (diethylamino)acetanilide)
IT 344-69-4P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and chlorination of)
IT 80668-93-5P 80668-97-9P 80669-01-8P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and deacetylation of)
IT 80668-99-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and etherification of)
IT 80668-94-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction with di-Me **methanephosphonate**)
IT 344-70-7P 1954-95-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction with dimethylamine)
IT 23153-12-0P 80668-87-7P 80668-89-9P 80668-96-8P 80669-00-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and sulfonation of)
IT 80668-98-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with phenol)
IT **80669-03-0**
RL: RCT (Reactant); RACT (Reactant or reagent)
(coupling of, with diazotized aminochlorobenzenedisulfonamide)
RN 80669-03-0 HCAPLUS
CN 1,7-Naphthalenedisulfonic acid, 4-[[3-[(5-chloro-2,6-difluoro-4-pyrimidinyl)amino]benzoyl]amino]-5-hydroxy- (9CI) (CA INDEX NAME)



L70 ANSWER 37 OF 53 HCAPLUS COPYRIGHT 2003 ACS
AN 1981:559777 HCAPLUS
DN 95:159777
TI Photochemical decomposition of optically whitening substances in the presence of complexons
AU Studzinskii, O. P.; Dyatlova, N. M.; Makashev, Yu. A.
CS Vses. Nauchno-Issled. Inst. Khim. Reakt. Osobo Chist. Veshchestv, Moscow, USSR
SO Zhurnal Prikladnoi Khimii (Sankt-Peterburg, Russian Federation) (1981), 54(8), 1823-5
CODEN: ZPKHAB; ISSN: 0044-4618
DT Journal
LA Russian
CC 74-1 (Radiation Chemistry, Photochemistry, and Photographic Processes)
Section cross-reference(s): 39, **40**, 41
AB Aq. solns. of complexons contg. phosphonic and carboxylic groups acted as photostabilizers, slowing photodecompn. of optical whiteners (derivs. of p,p'-diaminosilbene) while at the same time not effecting the luminescent properties of the others.
ST optical whitener photostabilization complexon; photolysis whitening agent complexon; luminescence whitening agent complexon; fluorescent brightener complexon photodecompn
IT Fluorescent brighteners
(diaminostilbene derivs., photostabilization of, by complexons)
IT Luminescence
(of diaminostilbene deriv. whitening agents, complexon concn. effect on)
IT Photolysis
(of diaminostilbene deriv. whitening agents, stabilizing effect of complexon on)
IT **1264-32-0** 66813-35-2
RL: USES (Uses)
(photodecompn. of, complexon concn. effect on)
IT 67-43-6 2666-14-0 **2809-21-4** 6419-19-8
RL: USES (Uses)
(photostabilization of whitening agents by)
IT **1264-32-0**
RL: USES (Uses)
(photodecompn. of, complexon concn. effect on)

RN 1264-32-0 HCAPLUS
CN Benzenesulfonic acid, 2,2'-(1,2-ethenediyl)bis[5-[[1,4-dihydro-4-oxo-6-(phenylamino)-1,3,5-triazin-2-yl]amino]-, disodium salt (9CI) (CA INDEX NAME)

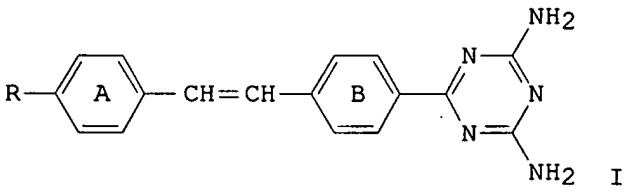


●2 Na

L70 ANSWER 38 OF 53 HCAPLUS COPYRIGHT 2003 ACS
AN 1980:496816 HCAPLUS
DN 93:96816
TI Diamino-1,3,5-triazinylstilbene compounds and their use as fluorescent whiteners
IN Erckel, Ruediger; Eckes, Helmut; Roesch, Guenter
PA Hoechst A.-G., Fed. Rep. Ger.
SO Eur. Pat. Appl., 40 pp.
CODEN: EPXXDW
DT Patent
LA German
IC C07D413-10; C07D417-10; D06L003-12; C08K005-35
CC 40-11 (**Dyes**, Fluorescent Whitening Agents, and Photosensitizers)
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 8123	A1	19800220	EP 1979-102893	19790810
	R: AT, BE, CH, DE, FR, GB, IT, NL, SE				
	DE 2835540	A1	19800228	DE 1978-2835540	19780814
PRAI	DE 1978-2835540		19780814		

GI



I

AB Title compds. (I; R = substituted 1,2,4-oxadiazol-5-yl, 1,2,4-oxadiazol-3-yl, 1,3,4-oxadiazol-2-yl, 1,3,4-thiadiazol-2-yl; rings A or B may be further substituted with **nonchromophoric** groups) are prepd. and used to whiten acrylic, **polyamide**, and polyester fibers. Thus, p'-(5-phenyl-1,3,4-oxadiazol-2-yl)-p-stilbenecarbonitrile

[73755-14-3] was heated with dicyandiamide [461-58-5] in the presence of KOH to give I(R = 5-phenyl-1,3,4-oxadiazol-2-yl; rings A and B not substituted) [**73754-76-4**]. Approx. 13 other I were prepd.

ST stilbene diaminotriazinyl fluorescent whitener; aminotriazinylstilbene fluorescent whitener; triazinylstilbene fluorescent whitener; oxadiazolylstilbene fluorescent whitener

IT Fluorescent brighteners
((diaminotriazinyl)oxadiazolylstilbene derivs., for acrylic, **polyamide** and polyester fibers)

IT Acrylic fibers, uses and miscellaneous
Polyamide fibers, uses and miscellaneous
Polyester fibers, uses and miscellaneous
RL: USES (Uses)
(fluorescent brighteners for, (diaminotriazinyl)oxadiazolylstilbene derivs. as)

IT **73754-76-4P**
RL: IMF (Industrial manufacture); PREP (Preparation)
(fluorescent brightener, prepn. and spectrum of)

IT 1874-47-1P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and bromination of)

IT 73755-09-6P 73755-12-1P 74682-22-7P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and cyclization of)

IT 73754-81-1P 73755-08-5P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and dehydration of)

IT 73754-80-0P 73755-11-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction with ammonia)

IT 1552-41-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction with benzaldehyde deriv.)

IT 73755-13-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction with benzhydrazide)

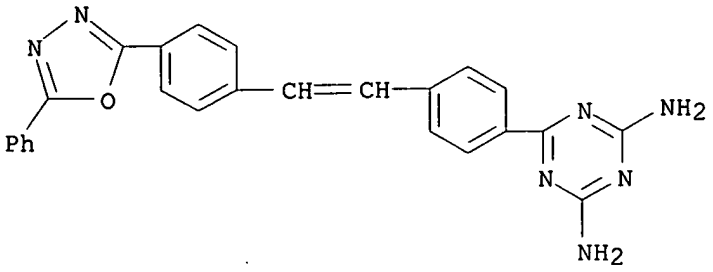
IT 73754-79-7P 73755-10-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction with thionyl chloride)

IT 21464-13-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction with urotropin)

IT 17872-73-0P 74682-23-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and sapon. of)

IT **73754-83-3P 73754-84-4P 73754-85-5P**
73754-86-6P 73754-87-7P 73754-88-8P
73754-89-9P 73754-90-2P 73754-91-3P
73754-92-4P 73754-93-5P 73754-94-6P

73754-95-7P 73754-96-8P 73754-97-9P 73754-98-0P
73754-99-1P 73755-00-7P 73755-01-8P 73755-02-9P 73755-03-0P
73755-04-1P 73755-05-2P 73755-06-3P 73755-07-4P
RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)
(prepn. and spectrum of)
IT 1552-41-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with benzaldehyde deriv.)
IT 74682-21-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with benzamidoxime)
IT 5366-76-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with benzoic acid hydrazide)
IT 461-58-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with benzonitrile deriv., cyclization in)
IT 613-94-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with benzoyl chloride deriv.)
IT 613-92-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with benzoyl chloride derivs.)
IT 619-66-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with benzylphosphonic ester deriv.)
IT 122-52-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with cyanobenzyl chloride)
IT 65145-97-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with di-Et **benzylphosphonate** deriv.)
IT 73754-82-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with dicyandiamide)
IT 73755-14-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with dicyandiamide, cyclization in)
IT 72436-17-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with thionyl chloride)
IT 874-86-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with tri-Et phosphite)
IT **73754-76-4P**
RL: IMF (Industrial manufacture); PREP (Preparation)
(fluorescent brightener, prepn. and spectrum of)
RN 73754-76-4 HCAPLUS
CN 1,3,5-Triazine-2,4-diamine, 6-[4-[2-[4-(5-phenyl-1,3,4-oxadiazol-2-yl)phenyl]ethenyl]phenyl]- (9CI) (CA INDEX NAME)



L70 ANSWER 39 OF 53 HCAPLUS COPYRIGHT 2003 ACS
AN 1980:409572 HCAPLUS
DN 93:9572
TI Diamino-1,3,5-triazinylstilbene derivatives
IN Erckel, Ruediger; Eckes, Helmut; Roesch, Guenther
PA Hoechst A.-G., Fed. Rep. Ger.
SO Ger. Offen., 35 pp.
CODEN: GWXXBX
DT Patent
LA German
IC C07D403-10
CC 40-11 (**Dyes**, Fluorescent Whitening Agents, and Photosensitizers)
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2835540	A1	19800228	DE 1978-2835540	19780814
	ES 483232	A1	19800416	ES 1979-483232	19790808
	EP 8123	A1	19800220	EP 1979-102893	19790810
	R: AT, BE, CH, DE, FR, GB, IT, NL, SE				
	DK 7903380	A	19800215	DK 1979-3380	19790813
	AU 7949839	A1	19800221	AU 1979-49839	19790813
	JP 55028975	A2	19800229	JP 1979-102312	19790813
	BR 7905192	A	19800506	BR 1979-5192	19790813
	ZA 7904205	A	19800827	ZA 1979-4205	19790813
PRAI	DE 1978-2835540		19780814		

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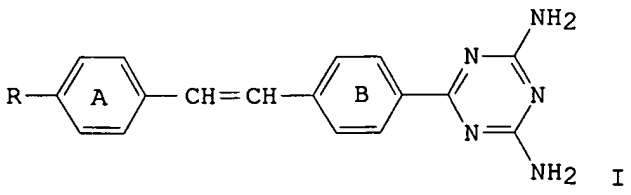


AB Fluorescent whiteners of general structure I are prepd., where R = substituted 1,3,4-oxadiazol-2-yl, 1,3,4-thiadiazol-2-yl, 1,2,4-oxadiazol-3-yl, or 1,2,4-oxadiazol-5-yl and rings A and B can be addnl. substituted by **nonchromophoric** substituents. Thus, a mixt. of 4-cyano-4'-(5-phenyl-1,3,4-oxadiazol-2-yl)stilbene [73755-14-3], dicyandiamide [461-58-5], and KOH in MeOCH2CH2OH was refluxed for 8 h to

give pale yellow I(R = 5-phenyl-1,3,4-oxadiazol-2-yl) [**73754-76-4**], .lambda.max 358 nm (DMF), which was applied to **polyamide** and polyester fibers from aq. dispersions, to acrylic fibers from spinning solns., and to polyester by high-temp. extrusion. Thirteen other I were similarly prepd.

ST stilbene fluorescent whitener prepn; triazinylstilbene fluorescent whitener prepn; fluorescent triazinylstilbene; oxadiazolystilbene fluorescent whitener prepn; aminotriazine fluorescent whitener prepn; polyester fluorescent whitener; **polyamide** fiber fluorescent whitener; acrylic fiber fluorescent whitener

IT Fluorescent brighteners
((aryloxadiazolyl)(diaminotriazinyl)stilbenes, for fibers and plastics)

IT Acrylic fibers, uses and miscellaneous
Polyamide fibers, uses and miscellaneous
Polyester fibers, uses and miscellaneous
RL: USES (Uses)
(fluorescent brighteners for, (aryloxadiazolyl)(diaminotriazinyl)stilbenes as)

IT 1874-47-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(bromination of)

IT 619-66-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensation reaction of, with di-Et (cyanobenzyl)**phosphonate**)

IT **73754-76-4P 73754-83-3P 73754-84-4P**
73754-85-5P 73754-86-6P 73754-87-7P
73754-88-8P 73754-89-9P 73754-90-2P
73754-91-3P 73754-92-4P 73754-93-5P
73754-94-6P 73754-95-7P
RL: PREP (Preparation)
(manuf. of, for use as fluorescent brightener)

IT 73755-08-5P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and chem. dehydration of, by phosphorus oxychloride)

IT 73754-81-1P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and chem. dehydration of, by thionyl chloride)

IT 1552-41-6P
RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn. and condensation reaction with carboxybenzaldehyde)

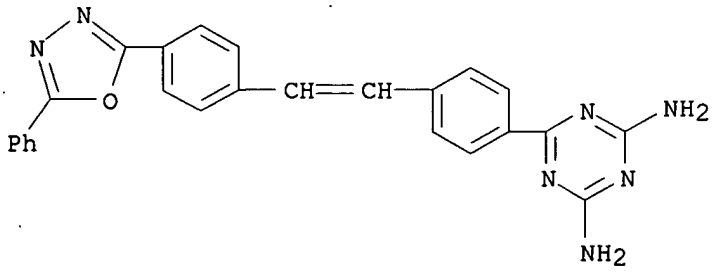
IT 73754-77-5P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and cyclization of)

IT 73755-09-6P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and cyclization of, by thionyl chloride)

IT 73755-12-1P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and cyclization of, with thionyl chloride)

IT 21464-13-1P
RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn. and formylation reaction with urotropine)

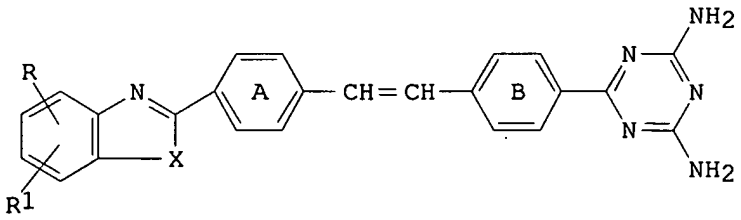
IT 17872-73-0P 73754-78-6P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and hydrolysis of)
IT 73754-80-0P 73755-11-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction with ammonia)
IT 73755-13-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction with benzoic acid hydrazide or benzamidoxime)
IT 65145-97-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction with di-Et (cyanobenzyl)**phosphonate**)
IT 73754-82-2P 73754-96-8P 73754-97-9P 73754-98-0P 73754-99-1P
73755-00-7P 73755-01-8P 73755-02-9P 73755-03-0P 73755-04-1P
73755-05-2P 73755-06-3P 73755-07-4P 73755-14-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction with dicyandiamide, ring formation in)
IT 72436-17-0P 73754-79-7P 73755-10-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction with thionyl chloride)
IT 5366-76-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with benzoic acid hydrazide or benzamidoxime)
IT 613-92-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with carbethoxy- or cyanostilbenecarbonyl chloride)
IT 461-58-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with cyanostilbene derivs., ring formation in)
IT 613-94-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with cyanostilbenecarbonyl chloride)
IT 874-86-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with tri-Et phosphite)
IT **73754-76-4P**
RL: PREP (Preparation)
(manuf. of, for use as fluorescent brightener)
RN 73754-76-4 HCAPLUS
CN 1,3,5-Triazine-2,4-diamine, 6-[4-[2-[4-(5-phenyl-1,3,4-oxadiazol-2-yl)phenyl]ethenyl]phenyl]- (9CI) (CA INDEX NAME)



L70 ANSWER 40 OF 53 HCAPLUS COPYRIGHT 2003 ACS
AN 1980:60336 HCAPLUS
DN 92:60336
TI Diamino-1,3,5-triazinylstilbene compounds and their use as fluorescent whiteners
IN Erckel, Ruediger; Schmidt, Erwin; Eckes, Helmut; Roesch, Guenter
PA Hoechst A.-G., Fed. Rep. Ger.
SO Eur. Pat. Appl., 40 pp.
CODEN: EPXXDW
DT Patent
LA German
IC C07D413-10; C07D417-10; C07D263-56; C07D251-18
CC 40-11 (**Dyes**, Fluorescent Whitening Agents, and Photosensitizers)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 2042	A1	19790530	EP 1978-101351	19781111
	EP 2042	B1	19801029		
	R: BE, CH, DE, FR, GB, NL				
	US 4220760	A	19800902	US 1978-959521	19781113
	AT 7808092	A	19810115	AT 1978-8092	19781113
	AT 363486	B	19810810		
	JP 54078726	A2	19790623	JP 1978-139940	19781115
PRAI	CH 1977-14005		19771116		

GI



I

AB Title compds. (I; R, R1 = H, **nonchromophoric** substituent chosen from F, Cl, Ph, alkyl, lower alkoxy, dialkylamino, trialkylammonium, acylamino, or optionally functionally modified carboxy or sulfo groups; RR1 = alkylene, fused benzene ring, 1,3-dioxypropylene; X = O, S; rings A and B may contain **nonchromophoric** substituents) are prepd. and used to whiten **polyamide**, polyester, and acrylic fiber and in

detergent compns. Thus, 4'-benzoxazolyl-2-stilbenecarboxylic acid [4763-79-5] was successively treated with thionyl chloride, NH3, and thionyl chloride to give 4'-benzoxazolyl-2-stilbenecarbonitrile (II) [33957-79-8]. Treatment of II in MeOCH2CH2OH in the presence of KOH with dicyandiamide [461-58-5] gave I (R = R1 = H, X = O) [**72436-32-9**] with fluorescence max. 420 nm (DMF).

ST stilbene diaminotriazinyl fluorescent brightener; aminotriazinylstilbene fluorescent brightener; triazinylstilbene fluorescent brightener; polyester fiber fluorescent brightener; acrylic fiber fluorescent brightener; **polyamide** fiber fluorescent brightener; detergent compn fluorescent brightener; benzazolylstilbene fluorescent brightener

IT Fluorescent brighteners
(benzazolyl(diaminotriazinyl)stilbenes, for synthetic fibers and detergent compns.)

IT Acrylic fibers, uses and miscellaneous
Polyamide fibers, uses and miscellaneous
Polyester fibers, uses and miscellaneous
RL: USES (Uses)
(fluorescent brighteners for, benzazolyl(diaminotriazinyl)stilbenes as)

IT 72436-23-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensation reaction of, with tolyltriazine deriv.)

IT 461-58-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclization reaction of, with cyanostilbene deriv.)

IT 95-84-1 1134-36-7 6623-41-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclocondensation reaction of, with stilbenecarboxylic acid deriv.)

IT **72400-21-6P 72400-23-8P 72436-19-2P**
72436-20-5P 72436-22-7P 72436-25-0P
72436-27-2P 72436-29-4P 72436-31-8P
72436-32-9P
RL: IMF (Industrial manufacture); PREP (Preparation)
(fluorescent brightener, prepn. and spectral properties of)

IT 18039-16-2P 33957-79-8P 72400-20-5P 72400-22-7P 72436-18-1P
72436-21-6P 72436-24-9P 72436-26-1P 72436-28-3P 72436-30-7P
RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn. and cyclization reaction with dicyandiamide)

IT 72436-17-0P
RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn. and cyclocondensation reaction with aminophenols)

IT 64893-55-6P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and dehydration of)

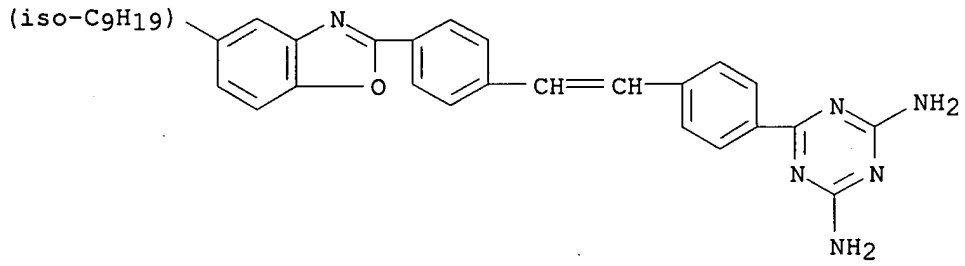
IT 1552-41-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction with benzaldehyde deriv.)

IT **19338-12-6**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with benzoxazolylbenzaldehyde chloroanil)

IT 122-52-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with cyanobenzyl chloride)

IT 619-66-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with di-Et **benzylphosphonate** deriv.)

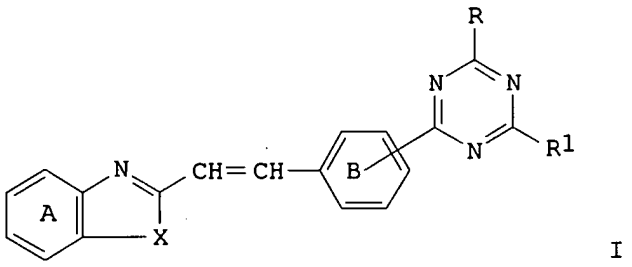
IT 4763-79-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with thionyl chloride and ammonia)
IT 874-86-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with tri-Et phosphite)
IT **72400-21-6P**
RL: IMF (Industrial manufacture); PREP (Preparation)
(fluorescent brightener, prepn. and spectral properties of)
RN 72400-21-6 HCAPLUS
CN 1,3,5-Triazine-2,4-diamine, 6-[4-[2-[4-(5-isononyl-2-benzoxazolyl)phenyl]ethenyl]phenyl]- (9CI) (CA INDEX NAME)



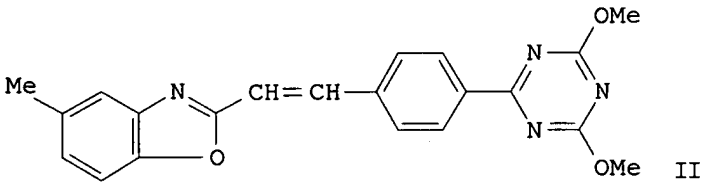
L70 ANSWER 41 OF 53 HCAPLUS COPYRIGHT 2003 ACS
AN 1978:512426 HCAPLUS
DN 89:112426
TI Fluorescent dyes
IN Eckstein, Udo; Harnisch, Horst
PA Bayer A.-G., Fed. Rep. Ger.
SO Ger. Offen., 38 pp.
CODEN: GWXXBX
DT Patent
LA German
IC C07D413-10
CC 40-11 (**Dyes**, Fluorescent Whitening Agents, and Photosensitizers)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2650456	A1	19780511	DE 1976-2650456	19761104
	US 4140852	A	19790220	US 1977-845949	19771027
	GB 1559243	A	19800116	GB 1977-45405	19771101
	JP 53057229	A2	19780524	JP 1977-130916	19771102
	FR 2370083	A1	19780602	FR 1977-33260	19771104
PRAI	DE 1976-2650456		19761104		

GI



I



II

AB Fluorescent dyes are prepd. which have general structure I, where R and R1 = halogen, OH, amino, alkoxy, aryloxy, alkyl- or arylthio, acylamino, alkyl, or aryl, X = O, S, or NR2 (R2 = H, alkyl, aryl, acyl) rings A and B can contain **nonchromophoric** substituents, and ring A also can contain 1 or 2 fused carbocylic rings. I are useful as fluorescent whiteners for synthetic fibers and plastics. Thus, reaction of 2-(chloromethyl)-5-methylbenzoxazole [41014-44-2] with (MeO)3P in DMF and treatment of the product with 4,6-dimethoxy-2-(4-formylphenyl)-1,3,5-triazine [**67014-40-8**] in the presence of NaOMe gave II [**67014-61-3**], which showed a deep blue fluorescence in DMF and a fast, strong whitening effect when incorporated in polyester. Other I were prepd. similarly or by condensing triazinylcinnamoyl chlorides with o-substituted arom. amines followed by cyclization.

ST styryl azole fluorescent whitener; triazinylstyryl fluorescent whitener; plastic fluorescent whitener; **textile** fluorescent whitener

IT Fluorescent brighteners
((triazinylstyryl)benzazoles, for plastics and synthetic fibers)

IT Polyester fibers, uses and miscellaneous
Polypropene fibers, uses and miscellaneous
RL: USES (Uses)
(fluorescent brighteners for, (triazinylstyryl)benzazoles as)

IT **42010-75-3**
RL: RCT (Reactant); RACT (Reactant or reagent)
(bromination of)

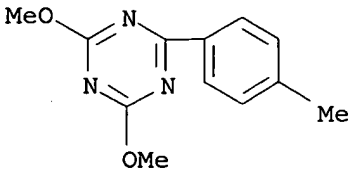
IT **67014-46-4 67014-47-5 67014-48-6**
67014-49-7 67014-50-0 67014-51-1
67014-52-2 67066-77-7 67066-78-8
RL: USES (Uses)
(fluorescent brightener, for fibers and plastics)

IT 9003-53-6
RL: USES (Uses)
(fluorescent brighteners for, (triazinylstyryl)benzoxazoles as)

IT **67014-45-3P**
RL: PREP (Preparation)
(manuf. of, as fluorescent brighener for fibers and plastics)

IT **67014-44-2P**
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP

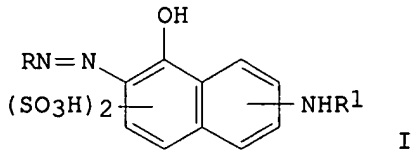
(Preparation); USES (Uses)
(manuf. of, as fluorescent brightener for fibers and plastics)
IT **67014-61-3P**
RL: PREP (Preparation)
(manuf. of, as fluorescent brightener for polyester fibers)
IT **67014-41-9P**
RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn. and formylation reaction with hexamethylenetetramine)
IT **67014-58-8P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction with aminophenols, ring closure in)
IT **67014-40-8P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction with di-Me [(methylbenzoxazolyl)methyl] **phosphonate**)
IT **67014-57-7P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction with thionyl chloride)
IT **67014-42-0P 67014-54-4P 67014-56-6P**
67014-59-9P 67014-60-2P
RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn. of)
IT 67014-43-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with (dialkoxytriazinyl)benzaldehydes)
IT 1199-46-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with (diphenyltriazinyl)cinnamoyl chloride)
IT 6623-41-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with (diphenyltriazinyl)cinnamoyl chloride, ring closure in)
IT 141-82-2, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with (formylphenyl)diphenyltriazine)
IT 95-21-6 120-75-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with (formylphenyl)triazine deriv.)
IT **67014-55-5**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with methylbenzothiazole)
IT **67014-53-3**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with methylbenzoxazole)
IT 41014-44-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with tri-Me phosphite)
IT **42010-75-3**
RL: RCT (Reactant); RACT (Reactant or reagent)
(bromination of)
RN 42010-75-3 HCAPLUS
CN 1,3,5-Triazine, 2,4-dimethoxy-6-(4-methylphenyl)- (9CI) (CA INDEX NAME)



L70 ANSWER 42 OF 53 HCAPLUS COPYRIGHT 2003 ACS
AN 1978:407577 HCAPLUS
DN 89:7577
TI Phosphonic acid mono azo dyes
IN Andrew, Herbert Francis; Ramsay, David William Crichton; Stead, Cecil Vivian
PA Imperial Chemical Industries Ltd., UK
SO Brit., 9 pp.
CODEN: BRXXAA
DT Patent
LA English
IC C09B029-30
CC 40-4 (**Dyes**, Fluorescent Whitening Agents, and Photosensitizers)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI GB 1491566	A	19771109	GB 1975-18715	19760409
PRAI GB 1975-18715		19760409		

GI



I

AB Azo dyes I (R = arom. contg..gtoreq.1 phosphonic acid group, R1 = acyl radical of an org. carboxylic or noncarboxylic acid) were manufd. which can be used with a disperse dye to dye cellulose and polyester blends. Thus, 1-N-benzoylamino-8-naphthol-3,6-disulfonic acid was coupled with diazotized 3-aminobenzenephosphonic acid to give I (R = 3-phosphonophenyl; NHR1 = 1-benzoylamino; 3,6-disulfo) which dyed cellulose **textiles** red.
ST phosphonophenylazoaminonaphtholsulfonate dye; azo dye cellulose **textile**; naphtholsulfonic amino azo dye; **aminobenzenephosphonate** benzoylaminonaphtholsulfonate dye; phosphono azo dye
IT Dyes, azo
(amino(phosphonophenylazo)naphtholsulfonates, cellulosic **textiles**)
IT 5427-30-5
RL: USES (Uses)
(coupling of diazotized, with benzoylaminonaphtholsulfonate)
IT 117-46-4
RL: RCT (Reactant); RACT (Reactant or reagent)

(coupling of, with diazotized **aminobenzenephosphonate**)

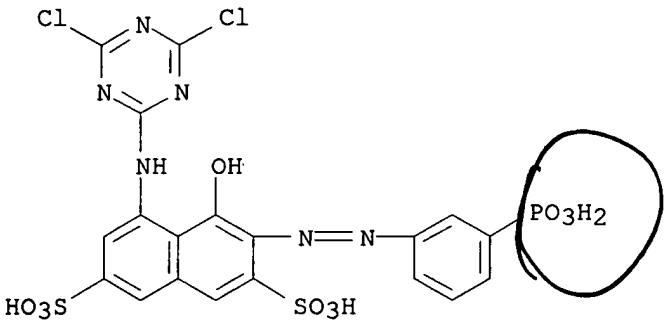
IT **66529-23-5P** 66529-24-6P
RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn. of, for dyeing cellulosic **textiles**)

IT 66529-22-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with cyanuric chloride)

IT **66529-23-5P**
RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn. of, for dyeing cellulosic **textiles**)

RN 66529-23-5 HCAPLUS

CN 2,7-Naphthalenedisulfonic acid, 5-[(4,6-dichloro-1,3,5-triazin-2-yl)amino]-4-hydroxy-3-[(3-phosphonophenyl)azo]- (9CI) (CA INDEX NAME)



L70 ANSWER 43 OF 53 HCAPLUS COPYRIGHT 2003 ACS

AN 1975:60493 HCAPLUS

DN 82:60493

TI Influence of light on the effectiveness of fluorescent whiteners

AU Bode, Klaus D.

CS Bayer, A.-G., Leverkusen, Fed. Rep. Ger.

SO Investigacion e Informacion Textil y de Tensioactivos (1974), 17(3), 413-25
CODEN: IITTCS; ISSN: 0302-5268

DT Journal

LA Spanish

CC 46-5 (Surface Active Agents and Detergents)
Section cross-reference(s): **40**

GI For diagram(s), see printed CA Issue.

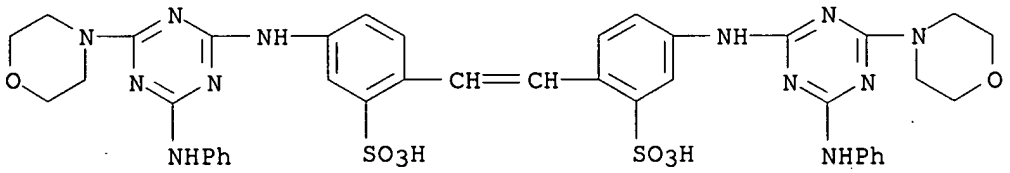
AB Fluorescent whiteners of types I and II showed better resistance to sunlight and the effects of other detergent components than III (R= NHMe, morpholino). The degree of whitening achieved using 0.1-0.2% whitening agent was measured for a specific laundering cycle, and the effect of uv exposure, alkali, Na **perborate** and anionic detergent on the whitening of the garment were detd.

ST aminostilbene fluorescent whitener detergent; detergent fluorescent whitening agent; stilbene fluorescent whitener detergent; triazolylstilbene fluorescent whitener detergent; lightfastness stilbene fluorescent whitener; oxidn resistance fluorescent whitener

IT Detergents
(for laundering, fluorescent brightener lightfastness in presence of)

IT Laundering
(of **textiles**, fluorescent brightener lightfastness in

relation to)
IT Light, chemical and physical effects
(on stilbene fluorescent brighteners, **textile** whitening in relation to)
IT Fluorescent brighteners
(stilbene derivs., lightfastness of, effect of detergent components on)
IT 2H-1,2,3-Triazole, benzenesulfonic acid deriv., derivs.
Benzenesulfonic acid, 2,2'-(1,2-ethenediyl)bis[5-(2H-1,2,3-triazol-2-yl)-, derivs.
RL: USES (Uses)
(lightfastness of, effect of detergent components on)
IT **24231-46-7 35632-99-6** 54275-75-1
RL: USES (Uses)
(lightfastness of, effect of detergent components on)
IT 497-19-8, properties 7632-04-4 7681-52-9
RL: PRP (Properties)
(stilbene fluorescent whitener lightfastness in presence of)
IT **24231-46-7**
RL: USES (Uses)
(lightfastness of, effect of detergent components on)
RN 24231-46-7 HCAPLUS
CN Benzenesulfonic acid, 2,2'-(1,2-ethenediyl)bis[5-[[4-(4-morpholinyl)-6-(phenylamino)-1,3,5-triazin-2-yl]amino]- (9CI) (CA INDEX NAME)



L70 ANSWER 44 OF 53 HCAPLUS COPYRIGHT 2003 ACS
AN 1974:465173 HCAPLUS
DN 81:65173
TI **Laboratory** method for the determination of the fluorescent brightener retention by cellulose fibers
AU Higersberger, Ewa; Gomolinska, Miroslawa
CS Inst. Przem. Org., Warsaw, Pol.
SO Przeglad Wlokienniczy (1973), 27(11), 596-8
CODEN: PRZWAZ; ISSN: 0033-2410
DT Journal
LA Polish
CC 40-11 (**Dyes**, Fluorescent Whitening Agents, and Photosensitizers)
AB The addns. of NaCl [7647-14-5] to the soln. used for fluorescent brightening of cellulosic fibers increased the amt. of brightener permanently adsorbed on the fibers. Brightener from the bath even without NaCl addns. have higher substantivity (S) than the fibers which have a low sorption without the NaCl addns. The S of brighteners is inversely proportional to the effect of NaCl on the permanent dye adsorption. This is the basis of determining S: 2 pieces of **cotton** are treated with and without NaCl addns. and the difference in their surface color intensity are detd. by photmeter. The relative S values are given for 5 brightener types; the following have the highest S in each dye type: Heliofor 4BC [52276-60-5], Uvitex CK [52277-00-6], Tinopal BST [52276-99-0], Blankophor BBU neu [52276-48-9], Photine BTN [

52276-79-6].
ST brightener retention fiber detn; substantivity brightener fiber
IT Fluorescent brighteners
(for cellulosic fibers, substantivity and substantivity testing of, sodium chloride in)
IT Sorption
(of fluorescent brighteners, on cellulosic fibers, detn. of, sodium chloride in)
IT 52276-48-9 52276-60-5 **52276-79-6** 52276-99-0 52277-00-6
RL: USES (Uses)
(fluorescent brighteners, for cellulosic fibers, substantivity and substantivity testing of, sodium chloride in)
IT 7647-14-5, uses and miscellaneous
RL: USES (Uses)
(in fluorescent brightening of cellulosic fibers, substantivity and substantivity testing in relation to)
IT **52276-79-6**
RL: USES (Uses)
(fluorescent brighteners, for cellulosic fibers, substantivity and substantivity testing of, sodium chloride in)
RN 52276-79-6 HCAPLUS

L70 ANSWER 45 OF 53 HCAPLUS COPYRIGHT 2003 ACS
AN 1971:437929 HCAPLUS
DN 75:37929
TI Stilbene fluorescent whitening agents
IN Suzusho, Hiroshi; Mizuno, Sadao; Kajino, Katsura
PA Kanegafuchi Spinning Co., Ltd.
SO Jpn. Tokkyo Koho, 5 pp.
CODEN: JAXXAD
DT Patent
LA Japanese
IC C08K; D06L; C07D
CC 40 (**Dyes**, Fluorescent Whitening Agents, and Photosensitizers)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 46008783	B4	19710305	JP	19680824

GI For diagram(s), see printed CA Issue.
AB Stilbenes (I, M = Na, K; X = Cl, N(CH2CH2OH)2, MeNH, PhNH, OMe; Y = CH2CH2, p-phenylene, CH2CH2CH2), useful as fluorescent whiteners for **polyamide** and cellulose fibers and having good resistance to acid resin treatment, were prepd. Thus, an aq. Me2CO soln. of cyanuric chloride was treated with Na 4,4'-diaminostilbene-2,2'-disulfonate then at 35.degree. with Na 2-**aminoethanephosphonate** to give I (X = Cl, Y = CH2CH2, M = Na). Three other I were similarly prepd.
ST cellulose **polyamide** fluorescent whitener; phosphonic acids fluorescent whiteners; triazines fluorescent whiteners; stilbenes fluorescent whiteners
IT Fluorescent brightening agents
(bis[[[(phosphonoalkyl)amino]triazinyl]amino]stilbenedisulfonic acid derivs., **nylon**)
IT **Nylon**, uses and miscellaneous
RL: USES (Uses)
(fluorescent brightening agents for, bis[[[(phosphonoalkyl)amino]triazinyl]amino]stilbenedisulfonic acid derivs. as)
IT Phosphonic acid, derivs. with stilbenedisulfonic acid
RL: USES (Uses)

(fluorescent brightening agents resistant to resin treatment)

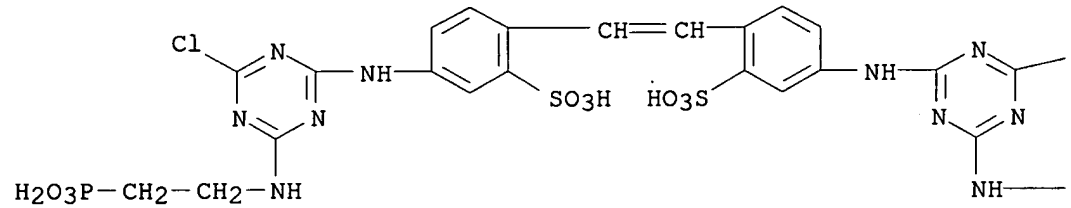
IT **31732-65-7P**
RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn. of)

IT **31732-65-7P**
RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn. of)

RN 31732-65-7 HCAPLUS

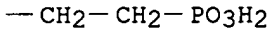
CN 2,2'-Stilbenedisulfonic acid, 4,4'-bis[[4-chloro-6-[(2-phosphonoethyl)amino]-s-triazin-2-yl]amino]-, hexasodium salt (8CI) (CA INDEX NAME)

PAGE 1-A



●6 Na

PAGE 1-B



L70 ANSWER 46 OF 53 HCAPLUS COPYRIGHT 2003 ACS

AN 1970:134118 HCAPLUS

DN 72:134118

TI Associating characteristics of reactive dyes with different reactive groups

AU Padhye, M. R.; Karnik, R. R.

CS Dep. Chem. Technol., Univ. Bombay, Bombay, India

SO Physicochem. Aspects Interaction Dyes Solution Fibre Syst., Proc. Symp. (1969), 56-64
CODEN: 17QUA6

DT Conference

LA English

CC 40 (**Dyes**, Fluorescent Whitening Agents, and Photosensitizers)

AB The aggregating properties of a set of fiber-reactive dyes in aq. phase were investigated by spectrophotometric techniques. The thermodynamic parameters, viz. .DELTA.H, .DELTA.F, and .DELTA.S were calcd. The selected dyes having the phthalocyanine **chromophore** show very

similar spectra. The differences in aggregation properties and in the thermodynamic parameters of hydrolysed and unhydrolysed dyes were evidently due to different reactive groups. The nature of the spectra clearly indicates parallel-packed configuration in dimers. Both the nature of configuration and the structure of dyes show that the binding forces in the dimer are of the van der Waals' type. The effect of changing the dielec. const. of the solvent possibly **corroborates** the hypothesis. The perpendicular distance between two dye mols., obtained by integrating the band intensities, was used to calc. the van der Waals' energy from so me semi-empirical relations.

ST assocn fiber reactive dyes; reactive dyes assocn; phthalocyanine reactive dyes

IT Dyes, reactive
(mol. assocn. in)

IT Entropy
Free energy
(of assocn., of reactive dyes)

IT Heat of association
(of reactive dyes)

IT Spectra, visible and ultraviolet
(of reactive dyes, mol. assocn. in relation to)

IT Molecular association
(of reactive dyes, visible spectra in relation to)

IT C.I. Reactive Blue 21
Copper, [phthalocyaninato(2-)]-, fiber-reactive derivs.
Drimarene Turquoise Blue GX
Phthalocyaninedisulfonic acid, copper complexes
Phthalocyaninedisulfonic acid, [[5-[(4-amino-6-chloro-s-triazin-2-yl)amino]-2-sulfophenyl]sulfamoyl]sulfamoyl-, copper complexes
RL: PRP (Properties)
(mol. assocn. of)

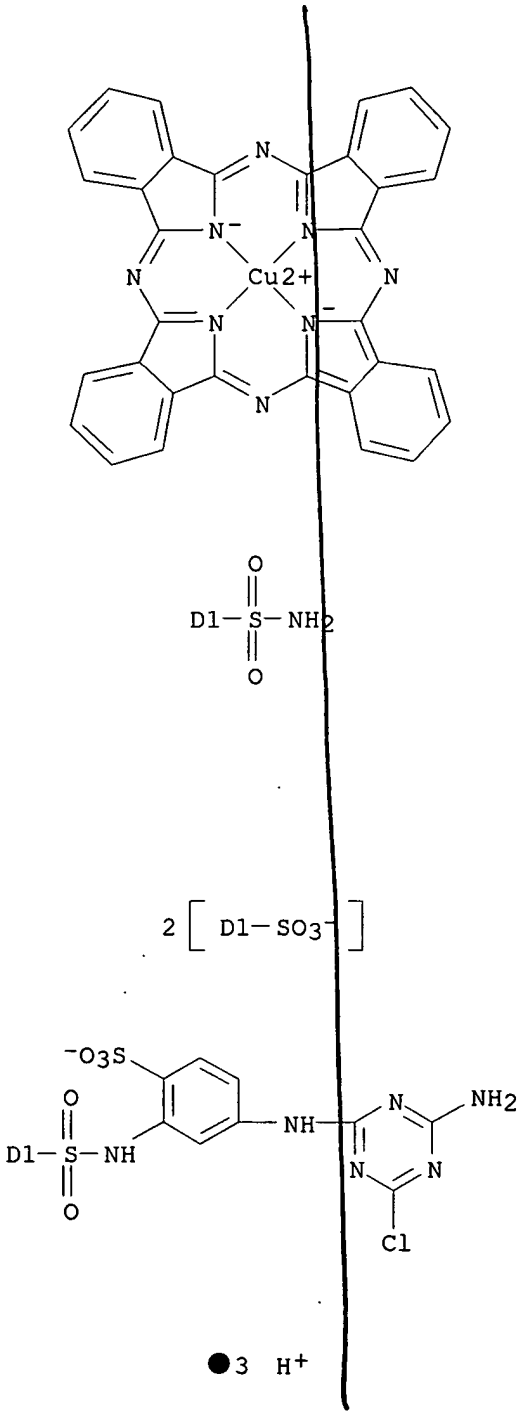
IT 1330-38-7 **12238-09-4**
RL: PRP (Properties)
(mol. assocn. of)

IT **12238-09-4**
RL: PRP (Properties)
(mol. assocn. of)

RN 12238-09-4 HCAPLUS

CN Cuprate(3-), [C-[[[5-[(4-amino-6-chloro-1,3,5-triazin-2-yl)amino]-2-sulfophenyl]amino]sulfonyl]-C-(aminosulfonyl)-29H,31H-phthalocyanine-C,C-disulfonato(5-)-.kappa.N29,.kappa.N30,.kappa.N31,.kappa.N32]-, trihydrogen (9CI) (CA INDEX NAME)

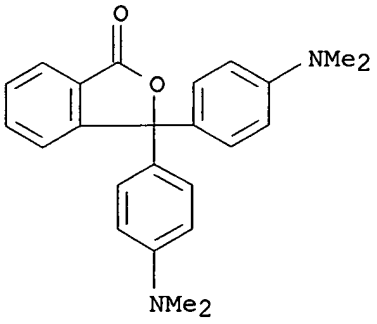
PAGE 1-A

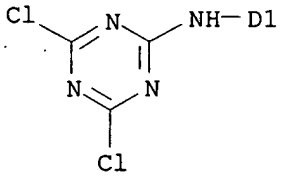


PAGE 2-A

L70 ANSWER 47 OF 53 HCAPLUS COPYRIGHT 2003 ACS
AN 1965:15639 HCAPLUS
DN 62:15639
OREF 62:2851e-h,2852a-d
TI Pressure sensitive dyes. IV. Synthesis of 3,3-bis(p-dimethylaminophenyl)phthalide derivatives
AU Moriga, Hiroyuki; Oda, Ryohei

CS Univ. Kyoto, Japan
SO Kogyo Kagaku Zasshi (1964), 67(7), 1054-8
DT Journal
LA Unavailable
CC 46 (**Dyes**)
GI For diagram(s), see printed CA Issue.
AB Alkylation or acylation of the NH2 group of III gave the following derivs. (substituted NH2 group, appearance, m.p., color in AcOH, and color with bentonite given): AcNH, colorless needles, 215.degree. (EtOH), blue, pale blue-green; BzNH, colorless crystals, 128.degree. (EtOH), green, green; p-MeC6H4SO2NH, colorless crystals, 135-7.degree. (MeOH), blue-violet, blue-violet; Bz2N, colorless crystals, 165-7.degree. (MeOH), blue-violet, blue-violet; Me2N, colorless crystal, 178-80.degree. (EtOH), blue-violet, blue-violet; MeNH (VI), colorless crystals, 202-4.degree. (EtOH), blue-violet, blue-violet; (4,6-dichloro-s-triazin-2-yl)amino, green crystals, 260-300.degree. (MeOH), green, green. Acetylation of III with Ac2O followed by ethanolysis gave Et 2-[hydroxybis(p-dimethylaminophenyl)methyl]-x-acetamidobenzoate, colorless leaflets, m. 91-2.degree. (C6H6), blue in AcOH and blue with bentonite. III was diazotized and coupled to give azo compds. (coupling component and shade on **cotton** given): 2-C10H7OH, dark brown; 2,3-HOC10H6CONHPh, rust red (**cotton** or **nylon**); 4-H2NC10H6SO3Na, pale red; 2,6-HOC10H6SO3Na, gray. These derivs. were characterized by paper chromatography, ir and uv spectrometry.
IT Dyes
(amino-3,3-bis[p-(dimethylamino)phenyl]phthalide derivs., pressure-sensitive)
IT Spectra, infrared
Spectra, visible and ultraviolet
(of amino-3,3-bis[p-(dimethylamino)phenyl]phthalide derivs.)
IT Dyes
(phthalide derivs., pressure-sensitive, for copying papers)
IT Copying paper
(phthalide dyes for pressure-sensitive)
IT **Borate, decahydrodecaborate(2-)**
(derivs., azo dyes)
IT 3159-89-5, Phthalide, 3-[3-amino-4-(dimethylamino)phenyl]-3-[p-(dimethylamino)phenyl]- 3159-93-1, Benzoic acid, o-[9-(dimethylamino)-12-hydroxy-12H-benzo[a]xanthen-12-yl]-, .gamma.-lactone 3159-94-2, Phthalide, 3,3-bis(m-aminophenyl)- 31740-15-5, Phthalide, amino-3,3-bis[p-(dimethylamino)phenyl]- **31740-23-5**, Phthalide, [(4,6-dichloro-s-triazin-2-yl)amino]-3,3-bis[p-(dimethylamino)phenyl]- 31740-25-7, Phthalide, 3,3-bis[p-(dimethylamino)phenyl][(2-hydroxy-1-naphthyl)azo]- 31740-27-9, Phthalide, 3,3-bis[p-(dimethylamino)phenyl][(2-hydroxy-6-sulfo-1-naphthyl)azo]-, sodium salt 105209-84-5, Phthalide, [(1-amino-4-sulfo-2-naphthyl)azo]-3,3-bis[p-(dimethylamino)phenyl]-, sodium salt 106198-14-5, Phthalide, [(3-benzamido-2-hydroxy-1-naphthyl)azo]-3,3-bis[p-(dimethylamino)phenyl]-
(prepn. of)
IT **31740-23-5**, Phthalide, [(4,6-dichloro-s-triazin-2-yl)amino]-3,3-bis[p-(dimethylamino)phenyl]-
(prepn. of)
RN 31740-23-5 HCAPLUS
CN 1(3H)-Isobenzofuranone, [(4,6-dichloro-s-triazin-2-yl)amino]-3,3-bis[p-(dimethylamino)phenyl]- (8CI) (CA INDEX NAME)





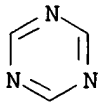
L70 ANSWER 48 OF 53 HCAPLUS COPYRIGHT 2003 ACS
AN 1961:10926 HCAPLUS
DN 55:10926
OREF 55:2130i,2131a-c
TI Wrinkle-resistant, **cotton**-containing fabrics
IN Hurwitz, Melvin D.
PA Rohm & Haas Co.
DT Patent
LA Unavailable
CC 25 (**Dyes** and Textiles)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 2950553		19600830	US	

AB The aminoplast-condensate formulations described are cured to form wrinkle-resistant finishes on **cotton** fabrics with sufficient rapidity that curing can be effected by a simple pressing or ironing operation. Thus, 600 g. 50% aq. bis(hydroxymethyl)-N,N'-ethyleneurea, 120 g. of a 50% aq. Et acrylate emulsion polymer, 80 g. of 25% aq. poly(methoxy siloxane), 0.4 g. methylenebis(diamylphenoxypolyethoxyethanol contg. 9 oxyethylene units, 50 g. of 35% aq. Zn(NO3)2 as catalyst, and 200 g. 10% aq. poly(vinyl alc.) were made up to 41. of soln. **Cotton** garments were then immersed in this soln., the excess liquid was removed by centrifuging, and the still damp garments were ironed. This was followed by pressing without steam at an iron temp. of approx. 190.degree., intermediate between the normal positions for **wool** and rayon, resp. After ironing, the garments were washed and allowed to dry after draining in as wrinkle-free condition as feasible. In all cases pleats and creases pressed in remained sharp in outline. In another example, the aminoplast resin was dimethoxymethyl(hydroxymethyl)melamine. Other catalysts recommended are Zn(ClO4)2, Zn(BF4)2, and MgCl2.

IT **Textiles**
(crease- and wrinkleproofing **cotton**, with aminoplasts curing by ironing or pressing)

IT Catalysts
(in curing, of aminoplast condensates in creaseproofing)
IT Siloxanes
(methoxy, 1,3-bis(hydroxymethyl)-2-imidazolidinone compns. contg., creaseproofing by)
IT Aminoplasts
(**textile** creaseproofing with, with curing by ironing or pressing)
IT Creaseproofing
(with aminoplast condensates curing by ironing or pressing)
IT Wearing apparel
(wrinkleproofing **cotton**, by aminoplast condensate curing by ironing or pressing)
IT Zinc **fluoborate**, Zn(BF4)2
(catalysts, in curing of aminoplast condensates in creaseproofing)
IT s-Triazin-2(1H)-one, tetrahydro-5-(2-hydroxyethyl)-1,3-bis(hydroxymethyl)-, condensate with HCHO
(for creaseproofing **cotton**)
IT 140-88-5, Acrylic acid, ethyl ester
(1,3-bis(hydroxymethyl)-2-imidazolidinone compns. contg., creaseproofing by)
IT **290-87-9**, s-Triazine
(amino derivs., condensation products with HCHO, for creaseproofing **cotton**)
IT 7779-88-6, Zinc nitrate 7786-30-3, Magnesium chloride 13637-61-1, Zinc perchlorate
(catalysts, in curing of aminoplast condensates in creaseproofing)
IT 85996-90-3, s-Triazin-2(1H)-one, tetrahydro-1,3-bis(hydroxymethyl)-5-(2-hydroxypropyl)-
(condensate with HCHO, for creaseproofing **cotton**)
IT 136-84-5, 2-Imidazolidinone, 1,3-bis(hydroxymethyl)-
(creaseproofing by compns. contg., with curing by ironing or pressing)
IT **557-01-7**, 2(1H)-Pyrimidinone
(derivs., condensate with HCHO, for crease-proofing **cotton**)
IT **290-87-9**, s-Triazine
(amino derivs., condensation products with HCHO, for creaseproofing **cotton**)
RN 290-87-9 HCAPLUS
CN 1,3,5-Triazine (9CI) (CA INDEX NAME)



L70 ANSWER 49 OF 53 HCAPLUS COPYRIGHT 2003 ACS
AN 1960:135409 HCAPLUS
DN 54:135409
OREF 54:25874b-d
TI Fireproofing of cellulosic **textiles**
IN Malowan, John E.; Nielson, Morris L.
PA Monsanto Chemical Co.
DT Patent
LA Unavailable
CC 25 (**Dyes** and Textiles)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2949385		19600816	US	

AB Cellulosic **textiles** are permanently fireproofed by a mixt. of the H2O-sol. hydrolysis product of the condensation product of POCl3 and NH3 (mol. wt. 200-250) at pH 7.0-7.5. The condensation takes place at 155-250.degree.. The cellulose contains 5-50% by wt. of the impregnating material and is heated to 100-200.degree. to insure permanence. Addn. of hydroxymethylated melamine increases the stability. Cf. U.S. 2,749,233 (CA 50, 13352i).

IT **Textiles**
(fire- or flameproofing cellulosic, with N-P compd. hydrolyzates of NH3-POCl3 condensation products)

IT **Textiles**
(flame-retarders for, heat-insulating **fluoborate** compns. as, and flameproof **textiles** from products)

IT Fireproofing
(of **textiles**, with N-P compd. hydrolyzates of NH3-POCl3 condensation products)

IT Ethanol, 2-chloro-, phosphate, dianhydride with N,N'-dimethylphosphorodiamidic acid
Phosphorodiamidic acid, N,N'-dimethyl-, dianhydrides with 2-chloroethyl phosphate
Phosphorodiamidic acid, N,N'-dimethyl-, dianhydrides with Et
(in fireproofing cellulose)

IT **108-78-1**, Melamine
((hydroxymethyl) derivs., mixts. with NH3-POCl3 condensate hydrolyzates in fireproofing **textiles**)

IT 108130-80-9, Pyrophosphoramide, N-ethyl-N'',N'''-dimethyl-N'-propyl-
116867-58-4, Pyrophosphoramide, N,N'-dimethyl-N'',N'''-dipropyl-
119211-40-4, Triphosphoramide, N,N',N'',N'',N''',N''''-hexamethyl-
119211-41-5, Triphosphoramide, N''-ethyl-N,N',N''',N''''-tetramethyl-
(in fireproofing cellulose)

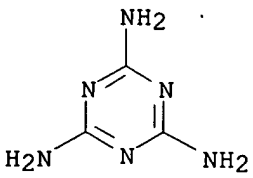
IT 7664-41-7, Ammonia
(reaction products of, with POCl3, fireproofing **textiles** with N-P compd. hydrolyzates of)

IT 10025-87-3, Phosphoryl chloride
(reaction products with NH3, fireproofing **textiles** with N-P compd. hydrolyzates of)

IT **108-78-1**, Melamine
((hydroxymethyl) derivs., mixts. with NH3-POCl3 condensate hydrolyzates in fireproofing **textiles**)

RN 108-78-1 HCAPLUS

CN 1,3,5-Triazine-2,4,6-triamine (9CI) (CA INDEX NAME)



L70 ANSWER 50 OF 53 HCAPLUS COPYRIGHT 2003 ACS

AN 1960:135370 HCAPLUS

DN 54:135370
OREF 54:25868e-h
TI Fiber-forming compositions containing dye-receptive, w ater-insoluble vinyl lactam polymers
PA Dow Chemical Co.
DT Patent
LA Unavailable
CC 25 (**Dyes** and Textiles)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 837982		19600622	GB	

PI GB 837982 19600622 GB

AB A minor proportion of a cross-linked, H2O-insol. vinyl lactam polymer is uniformly incorporated in fiber-forming compns. to give them greater dye-receptivity. Thus, vinylcaprolactam 4.0, methylenebisacrylamide (I) 4, and K2S2O8 0.05 g. in sufficient H2O to give a total vol. of 100 ml. were polymerized without agitation for 16 hrs. at 50.degree.. About 5.0 g. of a copolymer was recovered and found to contain 69.6% I polymerized in the copolymer mol. The copolymer (10% based on the dry wt. of the fibers) was blended into poly-acrylonitrile fibers. The treated fibers had excellent dye-ability with acetate, direct, and acid dyes, and were extremely resistant to losing the incorporated copolymer upon scouring in strong, aq. detergent solns. at boiling temp. Other copolymers prepd. were vinylpyrrolidinone with I, divinylbenzene, diallyl glycerol, triallyl cyanurate, diallyl sorbitol, diallyl pentaerythritol, diallyl fumarate, diallyl **phenylphosphonate**, trimethallyl isocyanurate, allyl acrylate, allyl methacrylate, the divinyl ether of diethylene glycol, and 2,4-diallyloxy-6-amino-s-triazine. **Nylon** 66 and fiber-forming polypropylene, m. 160-5.degree., were also treated with the copolymer of the above example.

IT Fibers, synthetic
(from acrylonitrile polymers, mixed with vinyl lactam cross-linked copolymers, dye-receptive detergent-resistant)

IT Vinyl compounds, polymers
(lactam deriv. cross-linked, manuf. of, and dye-receptive fibers from blends with acrylonitrile polymers)

IT Acrylamide, N,N'-methylenebis-, polymers with vinyl caprolactam
(and dye-receptive fibers from blends with acrylonitrile polymers)

IT Sorbitol, di-O-allyl-, copolymers with 1-vinyl-2-pyrrolidinone
s-Triazine, 2,4,6-tris(allyloxy)-, polymers of, with 1-vinyl-2-pyrrolidinone
(as dye receptive modifier for acrylonitrile polymers)

IT s-Triazine, 1,3,5-triacryloylhexahydro-, polymer with 1-vinyl-2-pyrrolidinone
(as dye receptive modifiers for acrylonitrile polymers)

IT Adipic acid, diallyl ester, polymer with 1-vinyl-2-pyrrolidinone
Benzene, divinyl-, polymers of, with 1-vinyl-2-pyrrolidinone
Succinic acid, diallyl ester, polymer with 1-vinyl-2-pyrrolidinone
(as dye-receptive modifier for acrylonitrile polymers)

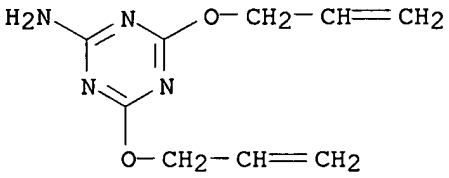
IT Phthalic acid, polymers of diallyl ester of, with 1-vinyl-2-pyrrolidinone
(as dyereceptive modifier for acrylonitrile polymers)

IT Maleic acid, diallyl ester, polymer with 1-vinyl-2-pyrrolidinone
(dye-receptive modifier for acrylonitrile polymers)

IT 2H-Azepin-2-one, hexahydro-1-vinyl-, polymer with methylenebisacrylamide
(manuf. of cross-linked, and dye-receptive fibers from blends with acrylonitrile polymers)

IT 28062-44-4, Acrylic acid, polymer with 1-vinyl-2-pyrrolidinone
(as dye-receptive modifier for acrylonitrile polymers)

IT **30358-11-3**, s-Triazine, 2,4-bis(allyloxy)-6-amino-
(copolymer with 1-vinyl-2-pyrrolidinone as dye-receptive modifier for acrylonitrile polymers)
IT 2590-16-1, 1,3-Propanediol, 2,2-bis[(allyloxy)methyl]-
(copolymers with 1-vinyl-2-pyrrolidinone as dye receptive modifier for acrylonitrile polymers)
IT 29595-46-8, Propanol, bis(allyloxy)-
(copolymers with 1-vinyl-2-pyrrolidinone as dye-receptive modifier for acrylonitrile polymers)
IT 25014-41-9, Acrylonitrile polymers
(fibers from cross-linked vinyl lactam copolymers and, dye-receptive detergent-resistant)
IT 88-12-0, 2-Pyrrolidinone, 1-vinyl-
(polymers of, with unsatd. compds., as dye-receptive modifier for acrylonitrile polymers)
IT **30358-11-3**, s-Triazine, 2,4-bis(allyloxy)-6-amino-
(copolymer with 1-vinyl-2-pyrrolidinone as dye-receptive modifier for acrylonitrile polymers)
RN 30358-11-3 HCAPLUS
CN 1,3,5-Triazin-2-amine, 4,6-bis(2-propenyloxy)- (9CI) (CA INDEX NAME)



L70 ANSWER 51 OF 53 HCAPLUS COPYRIGHT 2003 ACS
AN 1960:106233 HCAPLUS
DN 54:106233
OREF 54:20215h-i,20216a-b
TI Flameproof finishing of cellulosic **textiles**. III. Studies on the reaction of chloromethylphosphonic acid-urea mixtures and cellulose
AU Schiffner, Rudolf; Lange, Gottfried
CS Deut. Akad. Wiss., Berlin
SO Faserforsch. u. Textiltech. (1960), 11, 276-83
DT Journal
LA Unavailable
CC 25 (**Dyes** and Textiles)
AB cf. CA 54, 11489a. The reactions of chloromethylphosphonic acid (I) with urea and the effects of either or both on cellulosic fibers were studied. Upon heating 1 mole I and 4.3 mole urea together at temps. .gtoreq.130.degree., the former will transform into NH4 **chloromethylphosphonate** (II) and NH4 **aminomethylphosphonate** (III). The III content will increase with increasing heating duration and (or) temp. By heating for 20 min. at 150.degree., for example, the ratio will be 60% III and 40% II. With cellulose the chloromethyl- and aminomethylphosphonic acid monoesters form in the ratio corresponding to the duration and (or) temp. of the reaction. The NH4 salts of the esters will hydrolyze upon rinsing under replacement of NH4 with H ions. Both the NH4 and H ions will be replaced with Ca ions if the rinsing was with a CaCl2 soln. By treating cellulosic fabrics with aq. solns. of the urea/I melts, the same cellulose esters will form in the same ratio as when treated with the unmelted ingredients in soln. By

treating cellulose with urea only with or without antacid catalysts, the fabrics take up a certain amt. of N, most difficult to remove by rinsing. The amt. of N taken up depends on the concn. of the urea soln., duration, and temp. of heating. The taken up N is assumed to be contained in cyanuric acid developed within the fiber.

IT **Textiles**
(fire- or flameproofing cellulosic, with chloromethylphosphonic acid and urea, and strength loss therein)

IT Fireproofing
(of **textiles**, with chloromethylphosphonic acid and mixts. with urea)

IT Cellulose, **aminomethylphosphonate** and **chloromethylphosphonate** and NH4 salts
(formation in flameproofing)

IT Phosphonic acid, (aminomethyl)-, cellulose ester
Phosphonic acid, (chloromethyl)-, cellulose ester
(formation in reaction with cellulose and urea in flameproofing **textiles**)

IT 28997-84-4, Phosphonic acid, (chloromethyl)-, ammonium salt 55101-49-0, Phosphonic acid, (aminomethyl)-, ammonium salt
(formation in reaction with cellulose and urea in flameproofing **textiles**)

IT **108-80-5**, Cyanuric acid
(formation of, in cellulosic **textiles** in flameproofing)

IT 55101-49-0, Phosphonic acid, (aminomethyl)-, ammonium salt
(prepn. of)

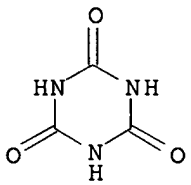
IT 2565-58-4, Phosphonic acid, (chloromethyl)-
(reaction with urea)

IT 57-13-6, Urea
(reactions of, with (chloromethyl)phosphonic acid and cellulose in flameproofing of **textiles**)

IT **108-80-5**, Cyanuric acid
(formation of, in cellulosic **textiles** in flameproofing)

RN 108-80-5 HCAPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX NAME)



L70 ANSWER 52 OF 53 HCAPLUS COPYRIGHT 2003 ACS

AN 1960:59287 HCAPLUS

DN 54:59287

OREF 54:11491a-b

TI Development of durable flame-retardant finishes for **cotton**

AU Frick, John G., Jr.; Arceneaux, Richard L.; et al.

SO PB Rept. (1959), Volume 151 550, 69 pp.
From: U.S. Govt. Research Repts. 31, 340(1959).

DT Report

LA Unavailable

CC 25 (**Dyes** and Textiles)

AB New methods for imparting a durable, flame-retardant finish to **cotton** fabrics were investigated. Primarily, methods were sought for the chem. attachment of P-contg. groups to cellulose. Classes of compds. investigated include: amides of P (V) acids; imides of P (V) acids; tetramethylphosphorodiamidic acid derivs.; P compds. contg. epoxy groups; **triazinylphosphonates**; and phosphoroisothiocyanatidate derivs. Also investigated were modifications of the H3PO4-urea process for the phosphorylation of **cotton**. The best finish developed was inferior in some respects to existing finishes. 25 references.

IT **Textiles**
(fire- or flameproofing of, with P compds.)

IT Fireproofing
(of **textiles**, with P compds.)

IT Phosphorus, diethyl
(compds., **textile** flameproofing by)

IT 57-13-6, Urea
(**cotton** phosphorylation flameproofing with H3PO4 and)

IT **4671-80-1**, Phosphonic acid, s-triazin-2-yl- 27972-73-2, Phosphorodiamidic acid, tetramethyl-
(derivs., in flameproofing **textiles**)

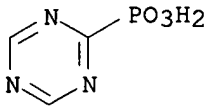
IT **290-87-9**, s-Triazine
(phosphonic acid derivs., in flameproofing **textiles**)

IT 7664-38-2, Phosphoric acid
(phosphorylation **cotton** flameproofing by urea and)

IT **4671-80-1**, Phosphonic acid, s-triazin-2-yl-
(derivs., in flameproofing **textiles**)

RN 4671-80-1 HCAPLUS

CN Phosphonic acid, 1,3,5-triazin-2-yl- (9CI) (CA INDEX NAME)



L70 ANSWER 53 OF 53 HCAPLUS COPYRIGHT 2003 ACS

AN 1958:37904 HCAPLUS

DN 52:37904

OREF 52:6806i,6807a,6808a

TI Anionic guanamine **phosphonates** for use as antistatic agents

IN Schuller, Walter H.

PA American Cyanamid Co.

DT Patent

LA Unavailable

CC 25 (**Dyes** and Textiles Chemistry)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 2822364		19580204	US	

AB In an example, 3.0 moles ethyl chloroacetate was added dropwise to 2.0 moles phenylbiguanide in 500 ml. MeOH. The mixt. was heated for 2 hrs. at 50-69.degree., yielding N-phenyl-6-(chloromethyl)guanamine (I). Triethyl phosphite (23 parts) and 23.6 parts I were heated to 160-70.degree. yielding a diethyl **phosphonate** compd. which was mixed with 5 parts dil. HCl and 15 part siso-PrOH and heated for 10 hrs. at 95.degree., yielding ethyl hydrogen 4-amino-6-anilino-s-triazin-2-ylmethylphosphonic

acid (II). The filtrate was treated further with concd. HCl and EtOH for 4 hrs. at 89.degree. to obtain a total yield of 32%. The Na salt of II (5 parts) was dissolved in 95 parts iso-PrOH and **nylon** immersed in the soln. No charge was induced by stroking the sheet with a glass rod for 15 min.

IT Fibers, synthetic
(elec.-charge prevention on, guanamine **phosphonates** for)

IT Electric charge
(prevention of, on synthetic fibers, guanamine **phosphonates** for)

IT Phosphonic acid, [(4-amino-6-anilino-s-triazin-2-yl)methyl]-, ethyl esters
(manuf. of, and use as antistatic agent for synthetic fibers)

IT Phosphonic acids
(triazine derivs., antistatic agents for synthetic fibers)

IT **504-08-5**, s-Triazine, 2,4-diamino-
(**phosphonates** of derivs. of, antistatic agents for synthetic fibers)

IT **30355-60-3**, s-Triazine, 2-amino-4-anilino-6-(chloromethyl)-
(prepn. of)

IT **504-08-5**, s-Triazine, 2,4-diamino-
(**phosphonates** of derivs. of, antistatic agents for synthetic fibers)

RN 504-08-5 HCAPLUS

CN 1,3,5-Triazine-2,4-diamine (9CI) (CA INDEX NAME)